Public Utilities

FORTNIGHTLY

Volume LII No. 7 September 24, 1953

NEEDED REFORM FOR UTILITY TAX AMORTIZATION

By F. Warren Brooks

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A Management Development Plan For Utilities

By Thomas E. Hurns

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Japan Seeks Dollars for Power Expansion Part II.

By Herbert Bratter

« »

Salt River Project—A Reclamation First

By Henry F. Unger

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

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Public Utilities Fortnightly.. stands for Federal and state regulation of both privately owned and operated utilities and publicly owned and operated utilities, on a fair and nondiscriminatory basis; for nondiscriminatory administration of laws; for equitable and nondiscriminatory taxation; and, in general—for the perpetuation of the free enterprise system. It is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

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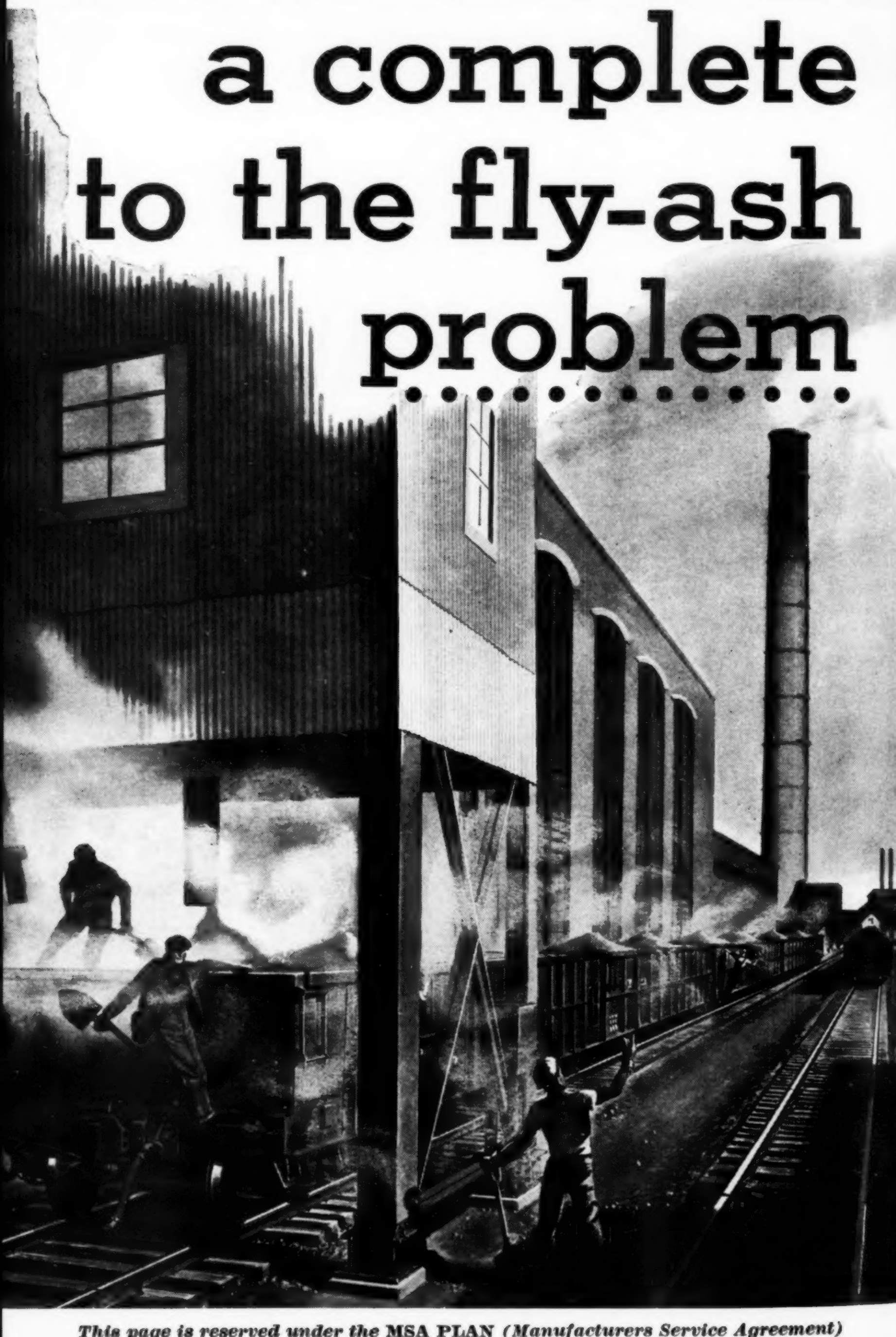

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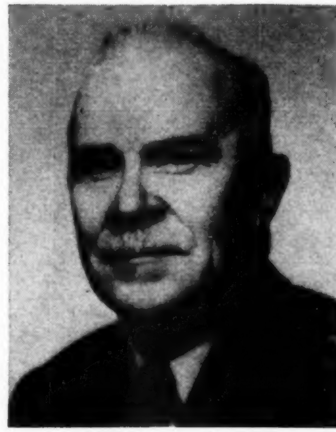
Pages with the Editors

As this issue is being distributed, the National Association of Railroad and Utilities Commissioners gathers for its sixty-fifth annual convention in Hotel Roosevelt, New York city, September 21st to 24th. Following our annual custom, we hope to present in a future issue a résumé of what the state commissioners are thinking and talking about, as well as excerpts from important committee papers and featured addresses on the floor of the convention.

From the advance program, we note a number of important and timely regulatory topics which will be given special attention by the state commissioners. In addition to the standing committee reports, there will be discussions of such important matters as the rôle of atomic energy; the long- and short-haul provision of the Interstate Commerce Act; the relationship between the state commissions and the Federal Power Commission; motor carrier indemnity insurance; the regulation of small independent telephone companies; and state commission reorganization and administration. Surely such a full and well-planned agenda should bring forth fruitful and enlightening results.

Earlier this summer, the representatives of various public utility industries protested to the House Ways and Means Committee against the inadequacy of original cost depreciation allowances for tax deduction purposes. The gist of the testimony of these witnesses for gas, electric, telephone (Bell and independent) companies, railroads and other common carriers was to the effect that current inflated prices and the deteriorated purchasing power of the dollar made it impossible to protect the original investor from the consumption of his capital by gradual attrition in the form of depreciation, obsolescence, etc.; that is, as long as the present original cost dollar allowance is continued as a standard for tax deduction for depreciation.



THOMAS E. HURNS

Most of the representatives seem to be in favor of some adjustment in the original cost dollar depreciation allowance, which would compensate for the fluctuation in the purchasing power of the dollar through the years. Otherwise, it was argued, the original investor in utility property is subject to what amounts to a capital tax levy because the company must pay out part of its capital as taxes. This is the result of the systematic understatement of utility depreciation and overstatement of capital investment in terms of original cost dollars.

Of course, there are practical difficulties in the way of obtaining specialized relief for the utility companies, even though it could be shown that they suffer from this tax inequity to a far greater proportion (something in the order of 400 per cent greater) than the average nonregulated industry with its relatively smaller amount of long-term capital investment subject to depreciation accrual. It was probably for this reason that one of the witnesses suggested an alternative approach in amending the Internal Revenue Act.

This interesting suggestion came from James F. Oates, chairman of the

board, The Peoples Gas Light & Coke Company, who felt that a simple amendment which would allow depreciation accruals for tax purposes to conform with provisions made by the regulatory authorities in determining depreciation for rate-fixing purposes, might be a more practical solution.

Of course, the end result in either case would be protection of the original investor from unfair exhaustion of his capital investment through inadequate depreciation accruals, whether for regulatory or tax deduction purposes. But there is, undoubtedly, some tendency on the part of Congress to shy away from special exemptions or provisions for particular industries being spelled out in the tax law. And this sentiment prevails, notwithstanding the admitted vulnerability of the heavy plant investment industries, such as the utilities (with their rigid rate limitations) to the tax discrimination aired in these hearings before the House committee.

There is also the tendency to assume that all industries will somehow find a way of passing along the tax load to the consumer, who has to foot the bill in the end anyhow. The only trouble with that comfortable assumption is that public utilities are *not* able to fix their own prices so as to pass on tax loads. Their only alternative to capital consumption is generally the raising of new capital, which becomes increasingly difficult under circumstances comparatively less attractive to the investor.

The leading article in this issue is essentially a statement of the position taken by most of the utility witnesses in favor of outright tax depreciation adjustment to reflect fluctuation in dollar purchasing power. The author is F. Warren Brooks, vice president of finance of The Cleveland Electric Illuminating Company, whose testimony before the House committee was especially impressive, because of the actual concrete examples used. Mr. Brooks worked out the problem in dollars and cents and with graphic illustrations which we thought neither the Congressmen nor our readers could miss, notwithstanding the usually complicated nature of this subject matter.

Mr. Brooks is a mechanical engineer and a member of the American Society of Mechanical Engineers. He has also had broad experience in rate matters and has actively participated in the work of the rate research committee of the Edison Electric Institute.

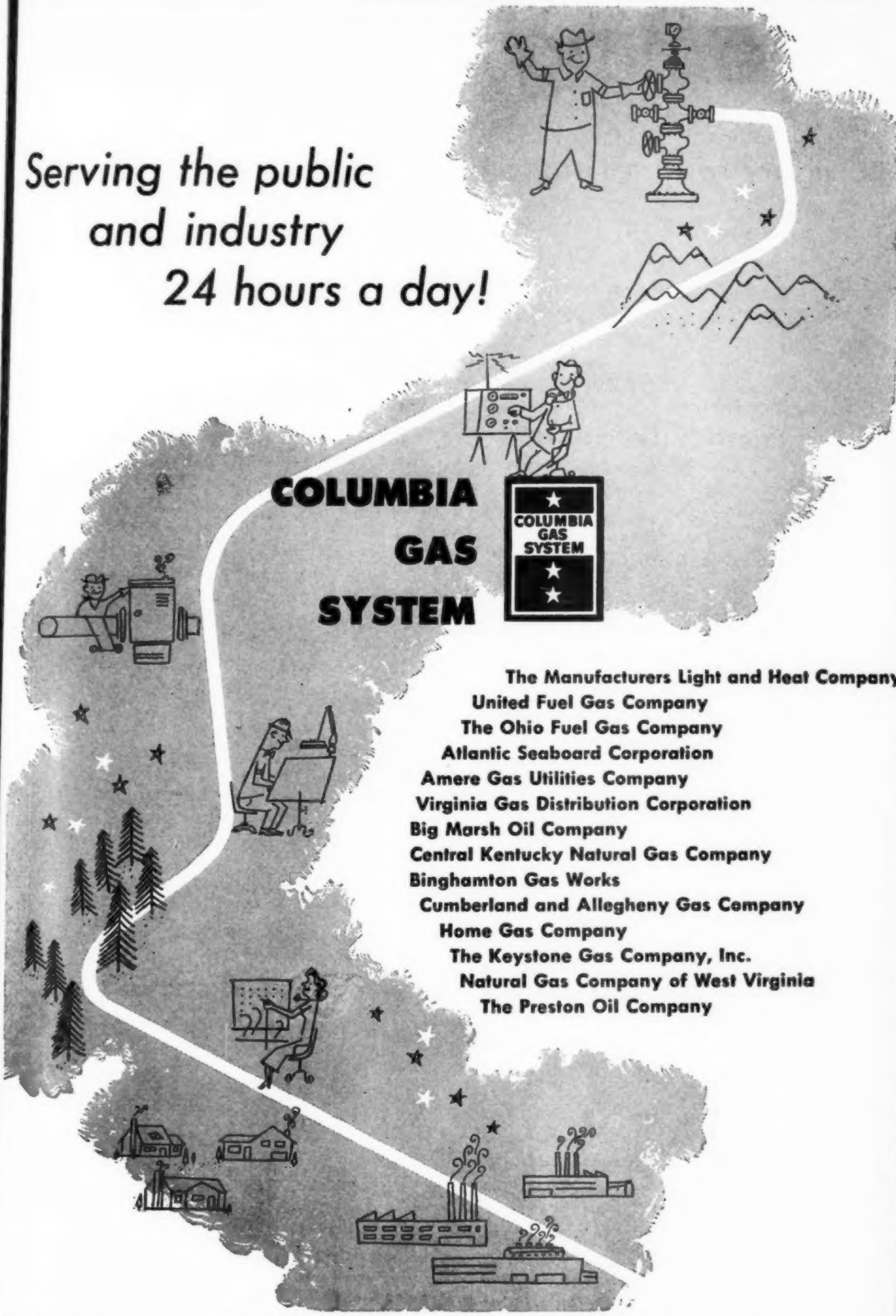
* * * *

What steps can an operating public utility company take to ensure that it is developing adequate and competent management replacements within its own personnel organization? This is a problem which is gaining increasing recognition within the utility industry, and to some extent within educational circles. In this issue (beginning page 416) is a practical account of a step-by-step program worked out by one important utility company which fostered the growth of managerial talent and checked and gauged the quality and scope of such growth in such a way as to give the executive full confidence in the future outlook along these lines.

The author of this article is Thomas E. Hurns, secretary and general accountant of The Detroit Edison Company. He has been associated with Detroit Edison since 1910 and has held his present position since 1951. He is a founder and past president of the Detroit chapter of the Tax Executives Institute. He is at present the national president of that organization. Mr. Hurns is also a past president and director of the Detroit chapter of the National Association of Cost Accountants and a member of the Edison Electric Institute's taxation accounting committee. His article is adapted from an address before the American Management Association's office management conference in New York last October.

The next number of this magazine will be out October 8th.

The Editors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Coming IN THE NEXT ISSUE

★

JUSTICE FOR UTILITY HOLDING COMPANY EQUITIES

Federal income taxes paid by public utility holding companies come out of the pockets of their investors rather than being paid by the customers. Because of the Securities and Exchange Commission regulations promulgated in 1941, regarding consolidated income tax returns, holding companies earned comparatively less for their stockholders than corresponding operations by the independent operating companies. Unless something is done to eliminate this inequity, a gradual shifting from holding company to operating company common stocks is likely to take place. Frank D. Chutter, utility specialist for the Massachusetts Investors Trust, has analyzed the reasons for early consideration by the SEC of proposed changes.

AN UNREGULATED "UTILITY"

If office building elevator operators charged passengers for their service, it could easily become the most widely patronized public utility industry in the nation. But because there is no charge or rate, it has not been subjected to regulation. Elevator service appears to be as close to public utility service as one can get without receiving or requiring the benefit of any regulation, except that of safety and maintenance inspection. Just the same, elevator service generally in skyscraping cities such as New York has come to represent a considerable load for the electric utilities. A. Bryan Marvin, of the press relations and public information department of Consolidated Edison Company of New York, Inc., gives us an interesting description of this transit system with 100,000 vehicles carrying more than 20 billion passengers per year without charging the rider one cent.

SELECTING AND TRAINING UTILITY SALESMEN

Because the people in any sales organization can make or break it, it is fundamental that those in supervisory positions should understand something of the psychology of human relations. A successful sales supervisor is a leader in the truest sense of the word. In the years ahead, selective training and supervising of utility salesmen is going to be an increasingly important part of utility management's responsibility. Philip M. Alden and Albert G. Garrigues, manager and assistant manager, respectively, of the retail sales division of the Philadelphia Electric Company, have written a helpful account of this very important aspect of modern utility operations.

ADDRESSES ON UTILITY PROBLEMS BEFORE THE AMERICAN BAR ASSOCIATION—APPENDIX—PART I.

Not only legal, but economic and financial problems of operating public utilities engaged the attention of the Section of Public Utility Law of the American Bar Association. This appendix contains the reporting of the various addresses given at the sessions of the annual meeting of the Section of Public Utility Law during the American Bar Association convention at the Sheraton Plaza Hotel in Boston, August 24th to 25th.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***

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Remarkable Remarks

"There never was in the world two opinions alike."
—MONTAIGNE

FLOYD B. ODLUM
President, Atlas Corporation.

"The Federal tax law should be drawn and administered for the purpose of raising necessary revenue, and not for social experimentation."

CRAWFORD H. GREENEWALT
President, E. I. du Pont de Nemours & Company, Inc.

"Business as a profession has come of age, and its members can stand before the world as practitioners of a difficult and complex art, without which the world would be poorer."

ALLAN SHIVERS
Governor of Texas.

"Overcentralization of power inevitably weakens a government. Wherever a highly centralized government exists there is danger that Communists will infiltrate the central unit and capture the whole."

SINCLAIR WEEKS
Secretary of Commerce.

"I say without hesitation that it is essential to the welfare of the country that the regulated utilities be regulated in such a manner as to enable them to attract all the capital that they can use in making economies and improving service."

EDITORIAL STATEMENT
The (London) Economist

"The real secret of American productivity is that American society is imbued through and through with the desirability, the rightness, the morality of production. Men serve God in America, in all seriousness and sincerity, through striving for economic efficiency."

PAUL B. MCKEE
President, Pacific Power & Light Company.

"I confidently predict that the day is not far off when you will see the citizens of Tennessee proposing to take out of Federal hands the power facilities of the TVA, in spite of all the bounties that have been bestowed upon them. They will do this because the only way to be sure of having an adequate power supply is to have it developed on a commercial basis."

JAMES Q. DU PONT
Atlantic district manager, Extension division, E. I. du Pont de Nemours & Company, Inc.

"[There was a time] when American business was about as young and fresh and as selfish and cruel as a high-school sophomore often is. But I resent being judged today entirely on what we were many years ago. The vast majority of American business has grown up to be a 'good and valuable citizen.' And I can report to you with confidence that most large and small businessmen are out to serve their communities and the nation."

Excerpt from Monthly Letter, published by The National City Bank of New York.

"Inflating the currency is the cheapest—and most destructive—way to provide a credit supply. It erodes the value of saving, stimulates speculation, and whips up an unnatural demand for credit."

EDWARD T. MCCORMICK
President, American Stock Exchange.

"We have failed to recognize the changing pattern of our securities market from a professional to an essentially investment-type market with the consequent need for concentrating on merchandising."

JOHN A. LLOYD
Vice president, Union Central Life Insurance Company.

"As a basic proposition, I believe Socialism is a political disease. Unless it is excised completely, the result is always fatal to freedom. And it should be opposed as vigorously in a municipality as in a state or in the nation."

DOUGLAS MCKAY
Secretary of the Interior.

"We are pledged to give the American people better service in the management of the nation's natural resources for their tax dollars. To do this each of us must make specific dollar-saving improvement in the performance of the work for which he is responsible."

LEONARD E. READ
President, The Foundation for Economic Education, Inc.

"The idea that each person has an inherent and inalienable right to life becomes meaningless when a person loses the authority for his own decisions and must act according to someone else's decisions. Unless a person holds the power of self-control, his life is not truly his own. Before a life can be valued for its own sake—and not just as a means to someone else's goal—that life must have its own power of choosing, its own quality, its own dignity."

EDITORIAL STATEMENT
Capital Journal, Salem, Oregon.

"If government operation of power is superior to private operation, it must follow that government operation of industry is generally superior. If this is true its benefits should not be limited, nor will they be limited to power. Rather they will tend to spread, to engulf all private enterprise until the government controls everything and everybody. This we know as totalitarianism and there is no reason to hope American totalitarianism would be any better than the foreign kind."

L. R. BOULWARE
Vice president, General Electric Company.

"The fact is that if a safe majority of us are to get enough economics to guide us properly—and to keep us from letting ourselves be guided improperly and to our destruction—we have to find a way for 10,000,000 discussion leaders—without props or prior formal training in economics—to take themselves and eight or ten associates each through a beginning discussion course in the arithmetic of our freedom as found in the study of money and inflation, direct and indirect taxes, incentives, savings competition, technological development, risk, and profit and loss in the free market run by free persons."

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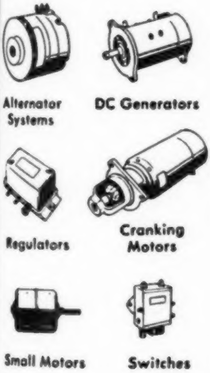

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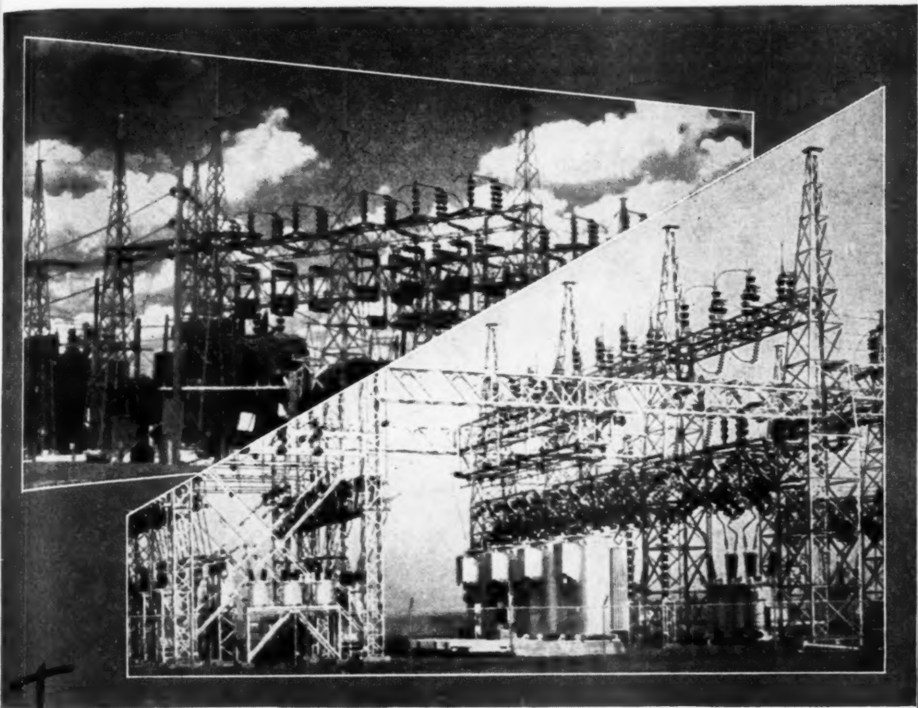

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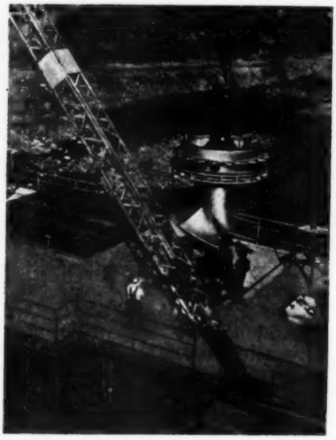

Lowering the runner, shaft and coverplate into position.

A view of the dam and powerhouse.

The illustrations on this page show another instance where a Leffel turbine was specified for the expansion of existing hydraulic power facilities. For this installation a Leffel vertical propeller-type hydraulic turbine was used. Maximum rating 11,500 HP, under 67 ft. net head, speed 180 RPM.

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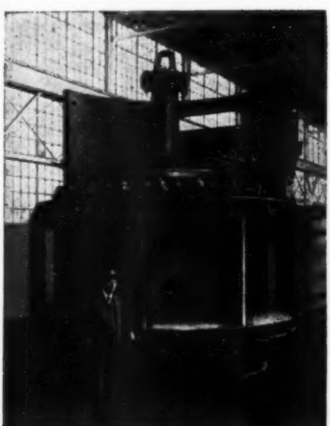

The assembled turbine in the Leffel plant.

Cast steel propeller-type runner, shown on the boring mill.

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Utilities Almanack

September

24	Th	¶ *Rocky Mountain Telephone Association begins annual convention, Salt Lake City, Utah, 1953.*
25	F	¶ *New England Meter Engineers end 2-day fall meeting, Casco, Me., 1953.*
26	Sa	¶ *Southern Gas Association, Transmission Section, begins round table on rights-of-way problems, Birmingham, Ala., 1953.*
27	S	¶ *Controllers Institute of America begins annual meeting, Boston, Mass., 1953.*
28	M	¶ *Independent Natural Gas Association of America begins annual meeting, Houston, Tex., 1953.*
29	Tu	¶ *National Electrical Industries Show begins, New York, N. Y., 1953.*
30	W	¶ *New England Water Works Association ends 3-day meeting, Poland Spring, Me., 1953.*

October

1	Th	¶ *Pennsylvania Electric Association, Relay Committee, begins fall meeting, Dallas, Pa., 1953.*
2	F	¶ *Southeastern Electric Exchange, Engineering-Operation Section, ends 2-day fall meeting, Pinehurst, N. C., 1953.*
3	Sa	¶ *United States Independent Telephone Association will hold national convention, Chicago, Ill., Oct. 12–14, 1953.*
4	S	¶ *American Water Works Association, Alabama-Mississippi Section, begins annual meeting, Jackson, Miss., 1953.*
5	M	¶ *American Society of Mechanical Engineers begins fall meeting, Rochester, N. Y., 1953.*
6	Tu	¶ *Texas Mid-Continent Oil and Gas Association begins meeting, Houston, Tex., 1953.*
7	W	¶ *National Association of Corrosion Engineers, South Central Region, begins meeting, Tulsa, Okla., 1953.*

Right of Way Across the Susquehanna

Air view of Columbia Gas System's right of way for 16-inch pipeline near Hyner, Pennsylvania.

Public Utilities
FORTNIGHTLY

VOL. LII, NO. 7 SEPTEMBER 24, 1953

Needed Reform for Utility Tax Depreciation

In view of the current inflated prices and the deteriorated purchasing power of the dollar, the original cost dollar allowance does not protect the original investor from the consumption of his capital. This article shows graphically how such systematic understatement of actual depreciation and overstatement of capital investment in terms of original cost dollars result in a tax levy on capital. A simple and fair method for adjusting the original cost dollar depreciation allowance for tax purposes is described.

BY F. WARREN BROOKS*

THE basis presently prescribed by Internal Revenue Code for depreciation allowance is the original cost of the property to the taxpayer. This basis does not meet the tests of economic soundness when there are significant changes in the purchasing power of the dollar. This basis for the depreciation allowance has been found to be defective on two counts. First, it currently causes an unintended levy on capital in addition to the intended levy on real income, and, second, this undue tax burden falls much heavier on some industries than on others.

Depreciation, of course, is the wearing out or exhaustion of property in the operations of a business. This physical aspect may be called the "eco-

*Vice president, The Cleveland Electric Illuminating Company. For additional personal note, see "Pages with the Editors."

nomic consumption" of property. The objective of the annual depreciation charges is to recover the costs of this economic consumption of property.

Most commonly used is the straight-line method of depreciation accounting. This should charge to each year's operations the costs of a uniform percentage of the total economic consumption of property which will be incurred over the life of the property. A defect in the usual application of the straight-line method is in the determination of the number of dollars to reflect this true depreciation expense.

When there is a variation in the purchasing power of the dollar, the annual depreciation allowance when based on original cost either overstates or understates the portion of the total economic consumption intended to be charged to the year.

This is true because the change in purchasing power has destroyed the relationship between dollar amounts and corresponding amounts of property.

THE example set forth in Table I below illustrates this. If a company has 100 completely equipped power distribution poles, all having a 20-year life, and each costing originally $100, it has made a total investment of $10,000. In order that the aggregate of the charges for depreciation to be made in each of the twenty years of the life of the poles will recover the costs of the economic consumption of the property, the dollar equivalent of one-twentieth or 5 per cent of the poles should be charged to operating expense in each of the twenty years. Thus it follows that for the deprecia-

TABLE I

HOW PRESENT ORIGINAL COST DEPRECIATION ALLOWANCE COVERS 100 POLES

(Assumptions: Original cost investment of $10,000 covering 100 poles at $100 each, all having a life span of twenty years.)

Year	*Dollars Allowed (Original Cost)*	*Change in Dollar Value*	*Poles Covered by Dollars Allowed*	*Poles Which Should Be Covered*
1	$500	100	5	5
2	500	160	8	5
3	500	200	10	5
4	500	160	8	5
5	500	100	5	5
6	500	100	5	5
7	500	80	4	5
8	500	60	3	5
9	500	60	3	5
10	500	50	2½	5
11	500	50	2½	5
12	500	50	2½	5
13	500	50	2½	5
14	500	50	2½	5
15	500	50	2½	5
16	500	40	2	5
17	500	40	2	5
18	500	40	2	5
19	500	40	2	5
20	500	40	2	5
	$10,000		76	100

tion allowance to equal the true depreciation expense chargeable to each year, the annual allowance should be a sufficient number of dollars to be able at the then current prices to pay for 5 per cent of the *original batch of poles;* that is, five poles.

However, if the depreciation allowance is computed on the *original cost* basis, what happens? The resulting annual amounts of $500 for depreciation allowance are the equivalent of 5 per cent of the actual total economic consumption, or five poles, only in those years when the purchasing power of the dollar is the same as at the time of origin of the property. This is true only in the first, fifth, and sixth years in the example given in Table I.

SOME years the purchasing power of the dollar goes up. If it becomes twice as great, the $500 allowed will pay for ten poles; that is, twice the economic consumption of property which should be charged. This is illustrated in the third year of the example in Table I. In this year and in other years where the purchasing power of the dollar is more than at the time of

TABLE II

DECLINE IN PURCHASING POWER OF THE DOLLAR
(1893-1952)

Year	*Consumer Price Index 1947-49 = 100**	*Purchasing Power of The Dollar 1947-49 = 100*	*Year*	*Consumer Price Index 1947-49=100**	*Purchasing Power of The Dollar 1947-49 = 100*
1893	30.9	323.6	1923	72.9	137.2
1894	30.0	333.3	1924	73.1	136.8
1895	30.0	333.3	1925	75.0	133.3
1896	30.6	326.8	1926	75.6	132.3
1897	30.9	323.6	1927	74.2	134.8
1898	30.9	323.6	1928	73.3	136.4
1899	31.5	317.5	1929	73.3	136.4
1900	32.7	305.8	1930	71.4	140.1
1901	33.3	300.3	1931	65.0	153.8
1902	34.3	291.5	1932	58.4	171.2
1903	35.8	279.3	1933	55.3	180.8
1904	35.5	281.7	1934	57.2	174.8
1905	35.5	281.7	1935	58.7	170.4
1906	36.7	272.5	1936	59.3	168.6
1907	38.9	257.1	1937	61.4	162.9
1908	37.4	267.4	1938	60.3	165.8
1909	37.4	267.4	1939	59.4	168.4
1910	39.5	253.2	1940	59.9	166.9
1911	40.8	245.1	1941	62.9	159.0
1912	41.1	243.3	1942	69.7	143.5
1913	42.3	236.4	1943	74.0	135.1
1914	42.9	233.1	1944	75.2	133.0
1915	43.4	230.4	1945	76.9	130.0
1916	46.6	214.6	1946	83.4	119.0
1917	54.8	182.5	1947	95.5	104.7
1918	64.3	155.5	1948	102.8	97.3
1919	74.0	135.1	1949	101.8	98.2
1920	85.7	116.7	1950	102.8	97.3
1921	76.4	130.9	1951	111.0	90.1
1922	71.6	139.7	1952	113.5	88.1

*Prior to 1913, cost of living index of Paul H. Douglas, *Historical Statistics of the United States 1789-1945,* Bureau of the Census, Department of Commerce, page 235. Data 1913 to date, *National Fact Book,* National Association of Manufacturers, § D, page 2a.

origin of the property, the result is clearly an enhancement of property assets through charges to expense.

But when inflation occurs and the purchasing power of the dollar is cut in half, the $500 will pay for only 2½ poles; that is, one-half the amount of economic consumption of property which should be charged. This is the case in the illustration from the tenth through the fifteenth years. The annual depreciation allowance in these years understates the true depreciation expense, and when continued results, as indicated in the example, in an unrecovered wasting away of the property assets. This is the more familiar pattern during these past years.

The purchasing power of our dollar seldom stays the same from year to year, so the depreciation allowance based on the original cost of the property is almost never the right number of dollars to equal the true depreciation expense. This in itself is inequitable; but when there is a continued trend of the purchasing power of the dollar in one direction, the inequities become serious since there results a permanent loss or gain.

In the example, the predominant trend during the life of the property was a substantial decline in the purchasing power of the dollar. There thus resulted a deficiency in the aggregate of the depreciation allowances so that the economic consumption of only 76 of the 100 poles had been accounted for and allowed as expense in determining taxable income during the life of the property. Yet all 100 poles were economically consumed. They are gone. They have lived their life. They have been retired. Thus there is a permanent loss to the extent that taxes were based on income computed without deducting all of the costs which were actually incurred.

This inequitable situation illustrated by the pole example will result whenever there is a decline in the purchasing power of the dollar from the levels existing at the time of origin of the property.

As shown in the accompanying Table II (page 409), the actual trend of the purchasing power of the dollar in this country has been declining for sixty years. The decline since World War II has been rapid.

Thus, currently, depreciation allowances under the provisions of the present Internal Revenue Code are significantly less than the true depreciation expense computed on a basis to properly recognize the change in the purchasing power of the dollar. If, as we believe, and as the pole example shows, the latter is the true expression of the depreciation expense chargeable to the year, then the determination of true taxable income requires the deduction of the greater amount for the depreciation allowance.

It would then follow that in the determination of taxable income any deficiency in the deduction of depreciation expense — due to its computation on an original cost basis — results in an inclusion in taxable income of *capital* in addition to real income.

Thus the use of the original cost basis for the annual depreciation allowance with the continued decline in the purchasing power of the dollar which has occurred, results in an unintended tax levy on capital in addition to the intended levy on real income. A tax which, under the guise of

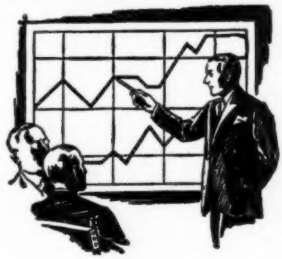


TABLE III

HOW USE OF ADJUSTED ORIGINAL COST BASIS COVERS 100 POLES
(Assumptions: Original cost investment of $10,000 covering 100 poles at $100 each, all having a life span of twenty years.)

Year	*Original Cost Dollar Basis*	*Change in Dollar Value*	*Dollar Allowance Adjusted Original Cost Basis*	*Poles Covered On Adjusted Basis*
1	$500	$100	$ 500	5
2	500	160	313	5
3	500	200	250	5
4	500	160	313	5
5	500	100	500	5
6	500	100	500	5
7	500	80	625	5
8	500	60	833	5
9	500	60	833	5
10	500	50	1,000	5
11	500	*	*	+
12	500	*	*	+
13	500	*	*	+
14	500	*	*	+
15	500	*	*	+
16	500	*	*	+
17	500	*	*	+
18	500	*	*	+
19	500	*	*	+
20	500	*	*	+

*No forecasting of future price levels is involved. The number of dollars to be charged in each year is dependent upon the price levels in that year only. +Regardless of the purchasing power of the dollar, the equivalent number of poles actually charged to each year's operations is 5; *i.e.*, exactly equal to the depreciation expense in terms of poles which properly should be charged to the year's operations.

an income tax, actually is in part levied on capital causes an undue tax burden.

Now what does this mean to electric utilities? The effect on the average for electric utilities is that the number of current dollars required to reflect the true depreciation expense properly chargeable to a current year is nearly 50 per cent greater than the number of dollars represented by the original cost depreciation allowance.

As a result, for the average large electric utility in 1952, 83 per cent of the income taxes paid were levied on real income and 17 per cent were levied on capital. The undue burden for elec-

tric utilities then is really of substantial proportions.

FURTHERMORE, if the effects of this undue tax burden are of significantly different magnitude on various types of industries, the inequities caused are correspondingly more serious because they are discriminatory.

The effects of the undue tax burden are significantly more adverse for some industries than for others.

The effect is most severe on those industries with a large amount of property and plant in relation to annual revenues.

Let us take, for example, three types of industries: one with a heavy plant ratio, one with a medium plant ratio, and one with a light plant ratio. Consider first the case of the heavy plant. There property and plant may be assumed at four times annual revenue in contrast with the case of the light plant where property and plant are one-half of annual revenue. The relative effects of the undue tax burden on these two cases at a time such as the present, when the true depreciation expense may be as much as 50 per cent greater than the depreciation allowance based on original cost, are as follows:

1. Each industry is subjected in some measure to an unintended tax levy on capital, and this undue tax burden takes eight times as great percentage of gross revenues from the heavy plant industry.

2. The increase in revenue required to offset the undue tax burden is thus eight times greater for the heavy plant industry.

3. The percentage reduction in operating expenses necessary to offset the undue tax burden is 20 times greater for the heavy plant industry.

Note the effect on the heavy plant industry. In the case of the industry with light plant ratio, even though there is an undue tax burden, it is not much of a problem to offset it. It takes only a one per cent increase in revenue or a one per cent reduction in operating expense to accomplish the offset. Not so with the heavy plant industries, however. There it takes an 8 per cent increase in revenues or a 22 per cent decrease in operating expenses to offset the undue tax burden. The significance of the burden is thus of serious proportions for heavy plant industries.

THE range of plant ratios we have just discussed is about the range in ratios between utilities on the one hand and the average of manufacturing industries in general on the other. This is shown in the chart on page 413.

Utilities typically have an investment in property and plant equal to from three to four times annual revenue, while manufacturing industries on the average have a plant investment equivalent to less than one-half of annual revenues.

Thus the adverse effects of understatement of the depreciation allowance are greatest on the utility industry.

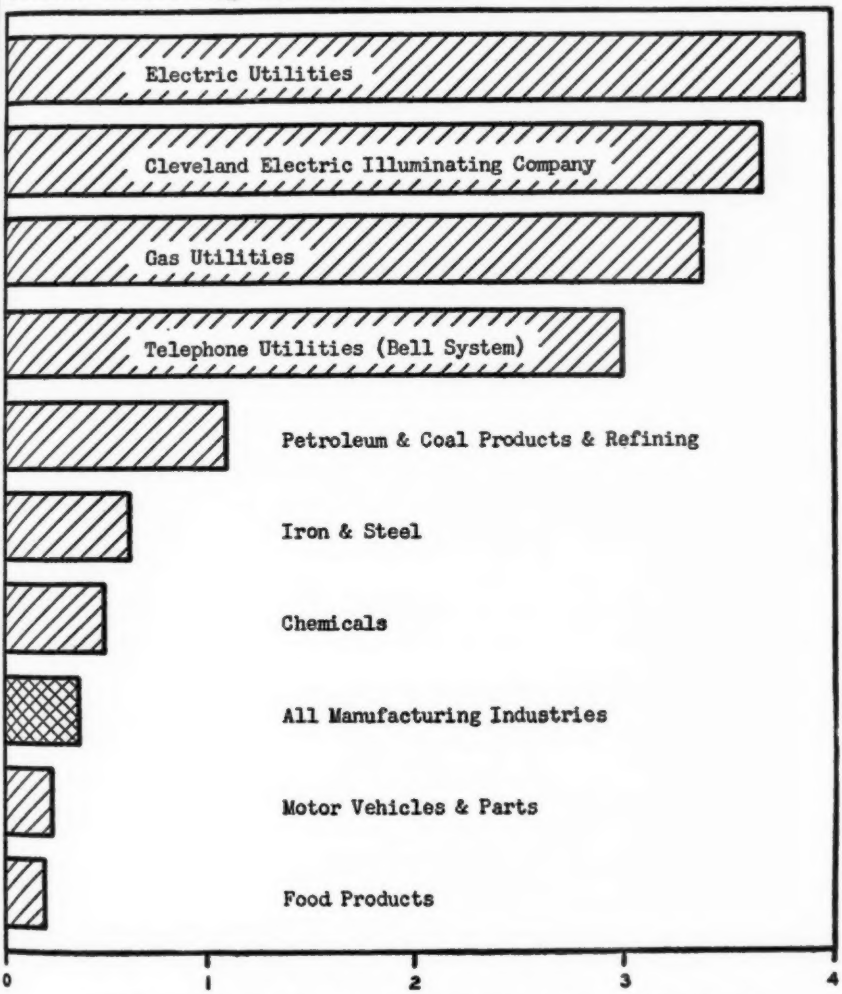
Not only is the significance of the undue tax burden much greater because of the heavy plant ratio, but the fact that the utilities are subject to regulation gives them less freedom to achieve an offset through increase in price than is experienced by unregulated industry in a free market.

To a substantial degree it is as a result of this combination of circumstances that the utilities have not kept pace with other industries in maintain-

ing the purchasing power of earnings and the purchasing power of the market value of their securities.

FROM 1940 to 1952 purchasing power of the earnings for common stock of industrial companies on the average *had increased 28 per cent,* and purchasing power of market price of industrial common stocks *had increased 22 per cent.* In the same period for utilities on the average, purchasing

UTILITY PLANT REQUIREMENTS COMPARED WITH OTHER INDUSTRIES



power of their common stock earnings *had decreased 24 per cent.* Purchasing power of the market price of their common stocks *had decreased 27 per cent.*

Thus the basis presently prescribed by the Internal Revenue Code for the depreciation allowance causes an undue tax burden on industry in general, and it discriminates against the heavy plant industries.

Now, it is this writer's contention that there is a sound remedy which will cure these defects by changing the basis for depreciation allowance.

As illustrated in Table III (page 411), a better basis for the determination of the depreciation allowance is available. It is an adjusted original cost to express that original cost in current dollars. This basis

TABLE IV

DETERMINATION OF DOLLAR ALLOWANCE FOR ADJUSTED ORIGINAL COST DEPRECIATION—TYPICAL LARGE ELECTRIC UTILITY—YEAR 1952

Year	*Surviving Assets At Book Cost By Year of Construction** (Thousands of Dollars)*	*Consumers' Price Index (1947-49 = 100)*	*Surviving Assets In Terms of 1952 Dollars (Thousands of Dollars) (Rounded) (Col. 2 x 113.5 Col. 3)*
1940 and Prior	152,466	59.9	289,000
1941	18,321	62.9	34,000
1942	8,278	69.7	14,000
1943	7,159	74.0	11,000
1944	3,599	75.2	6,000
1945	4,875	76.9	7,000
1946	8,325	83.4	11,000
1947	19,335	95.5	23,000
1948	41,167	102.8	45,000
1949	34,742	101.8	39,000
1950	29,961	102.8	33,000
1951	29,431	111.0	30,000
1952	42,341	113.5	42,000

Original Cost of Property and Plant at Year End 1952	400,000*	Adjusted Original Cost of Property and Plant at Year End 1952	584,000
Corresponding Average of Plant Beginning and End of Year	380,000	Corresponding Average of Plant Beginning and End of Year	555,000
Depreciation Rate*** (Adjusted for Ratio of Depreciables to Total Property)	2.74%	Depreciation Rate*** (Adjusted for Ratio of Depreciables to Total Property)	2.74%
Depreciation Allowance Original Cost Basis	10,400	Depreciation Allowance Adjusted Original Cost Basis	15,200

Adjusted Original Cost Depreciation Allowance Is 46% Greater Than Original Cost Depreciation Allowance

Gross Income \$19,200,000* x 1.48** = \$28,400,000 Taxable Income
Taxable Income \$28,400,000 x 0.52 Tax Rate = \$14,800,000 Income Tax

*1952 property and plant and gross income are rounded average figures for the 40 largest electric utilities in the country.

**Age distribution of property and plant and ratio of taxable income to gross income are based on The Cleveland Electric Illuminating Company experience.

***Depreciation rate is based on weighted average typical lives for steam and hydro systems from Bulletin "F," page 61, of Internal Revenue Bureau.

avoids all of the difficulties of the present original cost basis, and will result in depreciation allowances in every year which meet all the tests of economic soundness and equity regardless of the pattern or extent of changes in the purchasing power of the dollar.

In fact, the only true current expression of the *actual* original cost is the adjusted original cost expressed in current dollars.

When the size of the measuring unit (purchasing power of the dollar) has changed, the true original cost can only be correctly stated by adjustment to show the same in terms of the new size of the measuring unit.

Note that in the pole example in Table III, the number of dollars of depreciation allowance computed on the adjusted original cost basis, for each of the twenty years, is a sufficient number of dollars to be able to pay for five poles, or one-twentieth of the total. Thus the costs of a uniform percentage of the total economic consumption of the property is charged to each year as intended.

Accordingly, use of this basis results in charging precisely the right total amount of economic consumption of property during the life of the property. In the case of the pole example the total economic consumption charged is the 100 poles — no more and no less. Thus use of this basis neither causes an unrecovered wasting away of property assets nor enhancement of property assets through charges to expense. And taxes are levied only on true taxable income.

I wish to emphasize that no forecasting of future price levels is involved. The number of dollars to be charged in each year is dependent on the current purchasing power of the dollar in that year only.

The adjusted original cost can be determined in a simple and practical manner. Such a method of determination is illustrated in the computations in Table IV (page 414).

This basis is both practical to employ and equitable in result, regardless of the extent or character of changes in the purchasing power of the dollar. Accordingly, it is submitted that an amendment of the Internal Revenue Code to permit the use of an adjusted original cost basis for the determination of the depreciation allowances should be seriously considered by Congress in connection with other charges being considered for a forthcoming revision of the general tax law.

"How *can the commissions provide the public and the utility industry with the caliber of regulation contemplated by law unless commissions can be assured of the continuity of personnel and policy which comes from experience? How can commissions expect to attract and retain experienced personnel unless they are fairly compensated?"*

—Eugene S. Loughlin,
President, National Association of Railroad and Utilities Commissioners.

A Management Development Plan for Utilities

Questions of management development are gaining increased recognition by industrial and public utility companies as well as the colleges and universities. Many of the boys going into the universities nowadays are taking courses along that line. Here is the story of what one important utility company did to foster the growth of managerial talent and just how it was done.

By THOMAS E. HURNS*

A FEW weeks ago, an executive of a neighboring utility and I were seated together in the dining car of a New York-bound train. The conversation eventually evolved into a discussion of management development and his initial comment was, "I have never been subjected to more literature, more speeches at luncheon groups, conferences, or conventions, or more discussions on any one subject than I have on the subject of management development."

"The brochures of colleges and universities which highlight courses for management people are constantly crossing my desk; the conferences I attend invariably include management development; and current literature is replete with information on the subject." And then a rather pointed question was asked, "Isn't this another temporary frill or fancy program? Our businesses have progressed through the years without such programs; why the sudden concern?"

My companion's thoughts, although far from original, were certainly realistic.

THE progress made by the utility industry—and by industry in general—is, perhaps, one of the primary reasons for this increased concern. Our businesses are much larger in terms of customers, employees, and plant. Expansion—coupled with many social, political, and economic factors—has increased the complexities of the executive's job.

*Secretary, The Detroit Edison Company. For additional personal note, see "Pages with the Editors."

A MANAGEMENT DEVELOPMENT PLAN FOR UTILITIES

THE business executive is no longer able to do the detailed planning, forecasting, or scheduling; he is no longer able to make the daily decisions required in business. He has found it necessary to delegate these management activities to his supervisory staff. Consequently, the executive's main function is becoming more and more the development of people and not the direction of things. Further, the business executive is finding that the informal development processes employed in the past are not adequate and that these processes must be refined into a planned, organized approach to the development of his staff.

Management development is not a program in itself. It is a basic function of management. In fact, it has been defined as "that portion of the total management function which concerns itself with the supply, maintenance, and improvement of management personnel."

Management development has taken place — is taking place — in every business concern; for, as we meet with our supervisors, as we plan with them, as we help them to discharge their responsibilities more satisfactorily, and as we help them to solve their operating problems, so are we developing them.

IF management development is looked upon as a program in itself, as something apart from normal business activity, then it well may be a momentary fad with few lasting results. However, if it is looked upon as an integral part of the manager's job, management development becomes an organized, conscious approach to day-to-day management effort.

A Case Study

BEFORE discussing one planned approach to management development, it might be well to describe the organization of the departments in which this case study was developed.

The eight departments reporting to the secretary and general accountant are responsible for all accounting and bookkeeping functions of the company, including taxes, registration statements, continuous property records, meter reading, metering, billing, and collections for more than one million customers. There are approximately 1,100 employees in these eight departments.

Each department is directed by a department head and an assistant department head. The number of supervisors varies from seven in one department to twenty-two in another. Altogether there are 123 administrative, supervisory, and staff persons included in our management development efforts.

The management development plan consists of four basic steps. These are: (1) appraisal, (2) review, (3) appraisal interview, and (4) development.

None of these steps inject new responsibilities into the requirements of good management. A good manager should always know how well his people are performing and what their capacities are. Thus the appraisal. He should keep his superiors informed about his employees. This is the review. He should tell his employees how they are getting along, where they stand, and what they should do to improve. This is the appraisal interview. He should follow up to detemine the effectiveness of training, to encourage

improvement, or to point out failure to improve. This is development.

To repeat, none of these steps are new. The present plan merely formalizes them, provides a more objective and—we hope—better appraisal, and schedules and polices all steps so that none are neglected.

APPRAISAL. In the appraisal, a department head and his assistant and one, two, or three other persons of a higher management level than the supervisor being appraised discuss the supervisor's performance since his last appraisal. This appraisal group has as permanent members the department head and the assistant department head, for they are directly responsible for the day-to-day activities of the supervisor and thus are responsible for his continuing development.

The appraisal is guided by the following factors: (1) the *results* the supervisor has achieved during the past year or since his last appraisal; (2) the *methods* he has used to attain these results; (3) his *personal qualifications;* (4) his *potentialities;* and (5) the specific *action* the department head is to take. Action is pointed toward improvement in the performance of the supervisor, development of additional skills and knowledge, and the correction of undesirable traits, so that the supervisor may accept increased responsibilities.

THE appraisal session invariably begins with a somewhat varied expression of individual opinions. Through discussion these opinions become factual and are either agreed to by the group as a whole or are tossed out as not being accurate. Group discussion and group agreement are thus the cornerstone of the appraisal procedure, insuring the supervisor against snap judgments or opinions sometimes made by one individual.

Some critics of the group-appraisal technique have asked why it is necessary to spend so much time in discussion when a group of people can make individual estimates of a person's abilities in a much shorter time. Perhaps the estimate can be made individually in a shorter length of time. However, I am certain that the resultant evaluations will not be as accurate, will not be as complete as they are in the group-appraisal method. In addition, these discussions are a development device in themselves. There has been a noticeable change in the attitudes of some members of the middle management group as a result of their sitting around a table and discussing supervisory per-

"THE *business executive is no longer able to do the detailed planning, forecasting, or scheduling; he is no longer able to make the daily decisions required in business. He has found it necessary to delegate these management activities to his supervisory staff. Consequently, the executive's main function is becoming more and more the development of people and not the direction of things."*

formances with persons from their own level and from levels above and below theirs.

RESULTS. In discussing results, the appraisal group considers what the supervisor has accomplished in *measurable* results since his last appraisal. What volume of work does the supervisor handle within his group? Is the quality of work up to standard? Does he meet his schedules? Has he simplified group routines? Has he suggested improved methods? Has he stimulated his employees to make job-improvement proposals? Does his group work together as a team? Does the supervisor ably represent the company to the employees and customers? Is he reducing the relative costs of operating his group? These are some of the questions raised by the appraisal group, and the resultant discussions are decidedly based on facts. Production records, cost analyses, work standards, employee turnover, overtime reports, and other factors of record are used to determine the effectiveness of the supervisor in directing the work activity of his group.

METHODS. The appraisal group then considers the methods the supervisor uses, the way he goes about his job, the things he does or does not do that determine his accomplishments, his results. How does he plan and organize his work? Does he follow up on activities? How does he handle detail? How does he train and develop his people? Does he delegate responsibility? Is he conscious of costs? Does he guide or dictate? What are his work attitudes?

Thus analysis is necessary; for, if the department head is to improve the results attained by the supervisor, then he and the appraisal group first must determine how the supervisor does his job. Then the supervisor's good methods may be built on and his poor methods may be altered.

PERSONAL *Qualifications*. The third area discussed is the supervisor's personal qualifications as they pertain to his job. Does he have an adequate, thorough, or limited knowledge of the work in his group, in the department, in the group of departments? What experience does he have? Does he have the capacity to deal competently with new situations, the capacity to learn? Does he exercise sound judgment or does he jump at conclusions? Does he have initiative? To what degree? Does he have the ability to deal effectively with people, to select good personnel, to develop people? What are his over-all supervisory abilities?

After the supervisor's personal qualifications are evaluated, the group decides on his most noticeable weakness and his strongest single qualification. This technique is used to force the appraisal group to "dig deeper" in the evaluation of the individual. Many times the group will decide that the individual's most noticeable weakness, as an example, is his inability to work co-operatively with the other supervisors in the department; and, on reviewing the list of general qualifications, the members will discover that they had not mentioned this factor. It is another of a series of "checks and balances" in the procedure. Further, it highlights the quality on which the

The Value of Group Discussions

"THE appraisal session invariably begins with a somewhat varied expression of individual opinions. Through discussion these opinions become factual and are either agreed to by the group as a whole or are tossed out as not being accurate. Group discussion and group agreement are thus the cornerstone of the appraisal procedure, insuring the supervisor against snap judgments or opinions sometimes made by one individual."

department head can anchor his development efforts and determines the area in which the supervisor needs the most help.

POTENTIAL. The appraisal group then determines the supervisor's potential. What is the next step ahead? Does he have potential beyond this step? Does he first have to improve in his present job before being considered for advancement? Is he ready for advancement now, or is further training and experience necessary?

Following this decision, the group checks the current status of the supervisor. In other words, is he immediately promotable, promotable, satisfactory, questionable, or unsatisfactory?

There is no intention of "pegging" the individual. His current status is merely the appraisal group's personal evaluation of the supervisor's potentialities. The current status of an individual could change in a year's time or less and it often does change. The current status of all management persons provides a concise inventory of managerial talent.

ACTION. After the appraisal group has discussed the supervisor's results, the methods he uses, his personal qualifications, and his potential, the members of the group consider the specific development steps which might be taken to help the supervisor improve his performance. Actually, the group merely serves in an advisory capacity, since the department head is individually responsible for the development of the supervisor.

REVIEW. When all management persons in a given department are appraised, the department head

appears before a review board composed of the administrative heads of the eight accounting departments.

THE department head brings with him to the review meeting an organization chart of his department that is color-coded to show the current status of each of his supervisors; that is, whether they are promotable, satisfactory, or unsatisfactory. At a glance the review board can see the "strength" of the department. If all the supervisors are only satisfactory, then obviously the department has no reserve strength at the present time; no one has the ability to carry on the responsibilities of the department head or those of his assistant should either of them leave the department. However, if a department has two or three persons designated as promotable, that department has good reserve strength.

The department head has with him his appraisal book, which contains the written summary appraisal of each of his supervisors along with a description of each job and a sheet which lists the supervisor's personal history —age, education, company experience, and so forth. The department head recounts the appraisal of each of his supervisors. He is questioned on any facet of the appraisals, of his organization, of departmental routines, and of procedures.

This method permits the members of the review board to know each supervisor much better than they did previously when their knowledge was based entirely on casual contacts with the supervisor or on brief performance reports by the department head. On occasion, original impressions of the supervisor's capabilities are changed when the considered opinions of the appraisal group are made known.

SINCE the review board's primary concern is for the development of the individual supervisors, the board's main questioning is channeled toward the department head's plans for improving the performance and capabilities of those who report to him. If the department head tells us that one of his supervisors is unsatisfactory, we want to know why. We also question what he has done to help the supervisor improve his performance and what he plans to do in the future.

Some department heads have done a little squirming when faced with these questions. However, we are certain that they will have ready and realistic answers when the questions are asked of them during the next review, because their appraisal is based, in part, on their ability to evaluate the performance and potentialities of their subordinates and on their ability to develop the latent abilities of their people.

During our first round of appraisals, one of the department heads appeared before the review board with a chart which showed six out of fourteen supervisors as being promotable and the remainder as satisfactory. At first glance, this department appeared to be in very good shape. However, we had had indications in the past that some of these supervisors were not meeting a reasonable performance standard. Also, in comparison with departments already reviewed, this department seemed to be "out of line" as to the abilities of the supervisors.

As the department head recounted the appraisals to us, we soon dis-

covered that the appraisals were unrealistic. He had gilded the appraisals. He had refused to face his problems. We chided him for his complacency during the review, and his subsequent appraisal left little doubt that he had seriously neglected an important part of his management duties.

THE *Appraisal Interview.* After the department head is appraised—and this is a session separate from the review—his appraisal is discussed with him; and he, in turn, discusses the individual appraisals with each of his supervisors. The written appraisal is used merely as a guide for the department head to follow. He does not read the appraisal, nor does he show it to the supervisor. He does, however, stick to the main facts as agreed to by the appraisal group.

This interview is not a monologue carried on by the department head. It is a true discussion between the supervisor and his boss in which the supervisor's performance is thoroughly covered and his potentialities are reviewed in a general way. The supervisor is not told that he is promotable or unsatisfactory, for this classification is only temporary. Nevertheless, as the discussion progresses, the supervisor has a good understanding of how he stands.

A supervisor might take exception to some of the findings of the appraisal group; however, since the appraisal is based on facts and agreed to unanimously by three or four or five persons, the supervisor soon realizes a responsibility to correct his obvious deficiencies. We realize that the supervisor sees his job from a different level than his department head or the other members of the appraisal group. These discussions are invaluable in bringing about a better understanding between the supervisor and the department head in all aspects of the supervisor's job.

It is in the appraisal interview that the department head and the supervisor first plan the development steps necessary to improved performance. The department head, through discussion, creates a desire in the supervisor to change his method of operation, to broaden his experiences, or—perhaps—to enlarge his educational background. If the supervisor wants to improve his performance and asks how he can do it, then a very long stride has been taken toward actual accomplishment.

DEVELOPMENT. The development stage of our procedure is not as clearly defined as are the appraisal, the review, and the appraisal interview. Actual development has its beginning in the appraisal interview, it grows

¶ "SINCE *management development is part of normal operations and is not a controlled experiment, it is difficult to measure increased efficiency as a direct effect. Other management techniques come into play and are sharpened concurrently. However, a planned approach to management development has made a definite contribution to increased operating efficiencies and a reduction in costs.*"

through a series of experiences, and it is never-ending.

The development techniques employed by the department heads are based on individual needs; no one technique or formula is adequate or desirable.

The department head, knowing the needs of the supervisor, can coach him in his day-to-day contacts. He may plan a series of "guided experiences" for the supervisor; he may involve the supervisor in departmental planning or assign a research project to him; or he may assign him to a different job in order to broaden his experience. This in-plant development may be supplemented by university or correspondence courses, by memberships in professional organizations, or by participation in conferences, to give only a partial list of developmental techniques.

Evaluation

THIS, in brief, is our planned approach to management development. We have found it to be a very workable, a very valuable procedure. We first started our appraisals in late 1949, and we have recently completed appraising our supervisors for the third time.

How the Company Has Gained. Many specific benefits were immediately apparent to us; and, as we gain experience with the plan, additional benefits accrue.

Meeting Job Requirements. First of all, each supervisor now has a good understanding of what is expected of him, and he knows how he is living up to these expectations. Prior to the inauguration of our plan, we thought that all our supervisors knew these basic facts, but actual problems arose that disproved our thinking. I remember the time (and this was only one of many such cases) when one of the department heads bypassed a supervisor for promotion when that supervisor expected and anticipated taking another step up the management ladder. This supervisor had shortcomings—and had had them for some years—which were not called to his attention in a direct manner so that he might attempt to rectify them and to qualify himself for promotion. Perhaps he could not have completely equipped himself to discharge the additional responsibilities; but, if he had been told how he was doing, and if he had been given an opportunity to improve his performance, his failure to win the promotion would have been much more understandable to him. We feel that our present plan will keep this sort of thing from happening again.

RECOGNITION *of Management Ability.* To enlarge on this same theme, the department heads know their supervisors much better than they did previously; and I know the department heads much better, since we all have had the benefit of other people's opinions as to the capabilities of the persons who report to us. This is important both to the individuals and to the organization. Several supervisors who were thought of as having little potential are now considered promotable to higher management positions. This, of course, has expanded our pool of available executive talent.

Improved Communications. We have achieved a greater degree of

understanding between the various levels of management. The basic elements of our plan are designed to improve communications up, down, and across the organization and to bring about the sharing of experiences.

IMPROVED *Management Performance.* The supervisors and department heads have improved their daily job performance — some more than others. I dare say that there is not a single supervisor who has not improved his performance to some degree.

As a whole, they are planning and scheduling their work better; they have improved their skill in motivating their employees to a higher degree of job proficiency and have imbued the minds of the employees with a greater degree of job satisfaction.

Increased Efficiency. Since management development is part of normal operations and is not a controlled experiment, it is difficult to measure increased efficiency as a direct effect. Other management techniques come into play and are sharpened concurrently. However, a planned approach to management development has made a definite contribution to increased operating efficiencies and a reduction in costs.

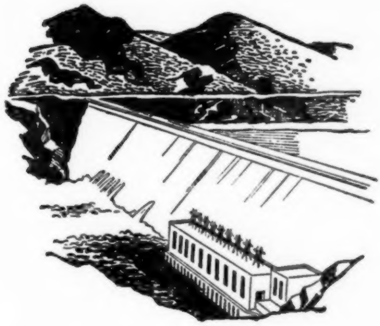
Conclusion

THE plan in use in the accounting departments, and in many other operating units of Detroit Edison, is ideally suited to our needs and to our organization. It is one of many possible approaches to management development.

The business executive is accepting more and more the responsibility for developing all persons who report to him to the fullest extent of his individual abilities.

"TODAY *the electric industry in the United States has great opportunities and along with these opportunities much greater responsibilities. Much has been said about the way our industry has been undermined by the growth of socialistic policies and the twenty years of attacks by proponents of government power. But I, for one, believe we grew strong, we recognized our weaknesses and are facing the future with a greater depth of understanding because of these opposing forces. We know that the answer to 'cheap government power' is cheaper, more reliable, less political, more businesslike, and more imaginative private power. Our companies have never been financially stronger, servicewise more capable, and earningswise more attractive than they are today."*

—B. L. ENGLAND,
President, Atlantic City Electric Company.



Japan Seeks Dollars for Power Expansion

Part II

Since VJ-Day, Japan has received major economic assistance from the United States for rehabilitation and relief. That country's power facilities are unequal to the needs of the future and much of its existing generation and distribution facilities are in need of repair and modernization.

By HERBERT BRATTER*

JAPAN's electric rate structures are complicated. Representative is that of the Tokyo Electric Power Company. Its rates in 1952 came under six categories, each with its own schedule and this sometimes varying as between winter and summer. The six categories were:

Flat-rate lighting
Meter-rate lighting
Large-consumer lighting
Commercial light and power
Small power consumer
Large power consumer

The flat-rate lighting rate consisted of a basic rate plus a graduated lighting charge increasing with the wattage; and graduated charges for appliances. Meter-rate lighting charges, also graduated, varied as between summer and winter. Large power consumers received winter and summer off-peak discounts based upon a complicated formula said to aggregate 70 per cent.

Allocation by the Public Utilities Bureau is done at headquarters according to groups of industries. Individual company allocations are then made by PUB's field offices. Consumers using less than 3,000 kilowatts during the base period July 1, 1949-June 30, 1950, receive a percentage of their base consumption.

DESPITE increases which have been granted since the war, electric

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power rates in Japan need to be raised substantially. The rates are far below comparable rates in the United States. For example, if the rates of the Tokyo Electric Power Company are in each case taken as 100, the rates of selected American utilities for selected services are as shown in table below.

Japanese company rates differ according to cost of production, but to some extent the differences are modified by official policy. In the view of the Federation of Electric Power Companies, the existing rate structure development of new power plant projects is "quite impossible." Beyond that, the rates do not allow adequate depreciation to build reserves for replacement. Offsetting this somewhat, it is admitted, is the fact that the debt of the companies may be serviced without adjustment for the inflation Japan has experienced; also a considerable amount of surplus capital has accrued to the utilities through revaluation of properties. This is a source of latent strength.

Much Capital Needed

WHILE not all estimates agree as to the amount of expansion of power needed by Japan, everything points to the need of large amounts of capital, a good part of which it is hoped can be obtained from the United States. The findings of F. Douglas Campbell, already cited in Part I, merely bear out the conclusions of the Japanese themselves.

Asked for comment on Japan's desire for dollar aid in the development of its power resources, Japanese Minister Takeshi Watanabe in Washington stated to PUBLIC UTILITIES FORTNIGHTLY:

> It is not only for the benefit of Japan but also for the benefit of the rest of the free nations to build up Japan's industrial productivity in order to make her the workshop of the Far East. Japan's production is already 40 per cent above the prewar level, and she still has enough labor and will to work as well as skill to master modern techniques. What she needs to do is to break the bottlenecks to further industrial development.
>
> One of the bottlenecks is the limited supply of energy. Japan's indigenous oil production is insignificant. She has low-grade steam coal but practically no coking coal. Her only source of energy, which is abundant, is her water power. In this field we can expect considerable expansion. It is also possible to expect more efficiency in thermal generating electric power by introducing newly developed techniques.
>
> Another bottleneck which stands in the way of a further increase of production is the lack of capital. Since Japan lost her capital by the war, the Japanese government is trying hard to encourage new accumulation of capital by introducing various measures, including tax revision. But capital formation is a slow process and where the capital is short, the interest rate is high. In Japan, commercial banks often charge 10 per cent per annum for industrial loans.
>
> Under such a situation, it is only natural that many Japanese industrialists wish to have foreign investments.

	Metered Rate Lighting 20 KW	*Commercial Power 5,000 KWH (Summer)*
Consolidated Edison Co.	258	336
Commonwealth Edison Co.	165	288
Detroit Edison Co.	180	354
Pacific Gas & Electric Co.	170	167

We know, however, we cannot induce foreign capital only by wishing for it. We have to create such a climate which will be inviting to foreign investors. As one of the steps, the Japanese government undertook negotiations with bondholders of prewar Japanese bonds and decided to pay every cent, including interest in arrears of the bonds. Before the war Japan and Finland were known as the only countries which had never defaulted in their financial obligations.

We are also aware that, at present, private capital in this country is still hesitant to make foreign investments. It is encouraging, however, to know that the World Bank and the Export-Import Bank are both interested in Japanese development, especially in the electrical industry. With the limitations under which these banks are operating, I am honestly hoping to develop some practical plan which will help develop Japanese industry and thus contribute to the whole free world.

JAPAN'S desire to become self-supporting and to gradually raise the standard of living cannot be achieved without a substantial increase in the production of electric energy. The Economic Stabilization Board in 1951 estimated that, with the population growing at the rate of 1.5 per cent annually and with a 2-per-cent-per-year improvement in the standard of living as a goal, by 1956 industrial production would have to be raised to 190 per cent of the 1932-36 level. For that purpose the supply of electric energy then available was quite inadequate, and, moreover, too irregular to be counted upon. At the time of the above estimates the unusually small rainfall had caused a 20 to 30 per cent shortage of power, with the result that factories were having to suspend operation two days weekly.

Although Japan has high potential hydro power possibilities, owing to the steep terrain, less than a third of the potential has been developed. The Industrial Bank of Japan states it to be the consensus that the undeveloped potential be developed through dam construction on such a scale as to make possible integrated management of the rivers. While Japan has sought the technical advice of American engineering consultants and hopes for financial help from this country, the Japanese of course intend to raise what capital they can at home; but without outside money the goals won't be reached. In this connection the Industrial Bank of Japan has stated:

> . . . Procurement of the necessary funds will be the biggest factor which will determine the size of the projects . . . (1) In view of the nature of the projects, there is need to continuously raise long-term equipment capital for a considerable length of time, and (2) owing to the shortage of accumulated capital in postwar Japan, there is very little capital available for use in such

¶ "ALTHOUGH *Japan has high potential hydro power possibilities, owing to the steep terrain, less than a third of the potential has been developed. The Industrial Bank of Japan states it to be the consensus that the undeveloped potential be developed through dam construction on such a scale as to make possible integrated management of the rivers.*"

roundabout production. While it is not impossible to raise a part of the required funds through the future efforts of private enterprises and/or through governmental measures, especially investment of Treasury funds, it should be recalled that, even in the prewar period when there was a relatively abundant supply of funds, long-term industrial capital for financing new projects was raised by floating loans abroad in the form of Industrial Bank of Japan debentures or foreign currency bonds in the case of electric power companies.

With the present standard of living at 80 per cent of the not too high prewar level, at which time Japan was criticized for her cheap labor, much cannot be expected for some time from increased investments through savings by austere living. On the other hand, an artificial creation of funds necessary to finance the huge projects is fraught with the danger of immediately developing inflation in this country.

In any case, so long as the development program is considered necessary . . . it is probable that some degree of sacrifice will have to be undergone. Should the most-expected financial aid from the United States not be realized, the funds procurement program will have rough sailing.

Long-range Plans Revised

In 1952 the Economic Policy Board reportedly "finalized" a revised version of the 5-year power development plan, based on certain industrial-production targets calculated to raise the mining and manufacturing index to 176 per cent of 1934-36. The initial increase in power is to come from the development program of the nine electric power concerns. That to be undertaken by the Electric Power Development Corporation will take longer but make the greater contribution in the end, according to a press report. A moderate rôle in the plan is assigned to local governments and private companies. Taking the development plan as a whole, the largest expenditures will fall in the three years starting March 31, 1953.

The government's projected power program for the five years 1952-57 would provide 3,981,300-kilowatt hydro capacity and 1,480,500 thermal capacity. The cost would be an estimated 460.1 billion yen for generating facilities, 301.6 billion yen for transmission and distribution facilities, and 91 billion yen for improvement of existing facilities—all of which adds up to a cost of about $2.5 billion.

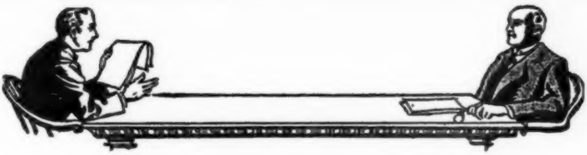
In view of Mr. Campbell's statement that present plans are inadequate, the somewhat more ambitious proposal prepared last year by the Federation of Electric Power Companies for submission to the World Bank may be noted. The federation calculated the requirements of a 5-year construction program as more than a trillion yen, as follows:

FUNDS NEEDED FOR 5-YEAR CONSTRUCTION PROGRAM
(In Millions of Yen)

Generating equipment:	
Hydro	450,000
Thermal	90,000
Total	540,000
Transmission lines, substations, distribution lines, and general plants	540,000
Total required funds	1,080,000

Extensive Modernization Planned

With the capital it hopes to raise abroad and at home the Japanese power industry would make extensive improvements in its electric power system. In the opinion of the Federation



Survey Findings Summarized

THE *basic findings of the first semiannual power survey are officially summarized in the report as follows:*

1. CAPABILITY *of the nation's electric power systems at the time of the annual December peak load will increase from approximately 6,300,000 kilowatts in 1952 to 8,900,000 kilowatts in 1957 under median hydro conditions if additions to generating capacity planned up to October, 1952, are carried out according to schedule.*
2. PEAK LOAD *for the country as a whole, on the basis of unrestricted use of electric power, will increase from an estimated 7,800,000 kilowatts in 1952 to 10,400,000 kilowatts in 1957, an average annual increase of about 6.6 per cent. Actual peak loads that can be carried during this period will be dependent upon the capability available.*
3. DEFICIENCY *in peak capability at the time of the December, 1952, peak load is estimated as about 1,500,000 kilowatts. This deficiency will become less as presently planned new power projects are brought into service. However, curtailment will continue to be necessary until additional new power projects now contemplated can be undertaken and until improved balance between thermal and hydro sources can be established.*
4. ENERGY *requirements of the nation on the basis of unrestricted use of power will exceed the annual energy output for the year 1952 by almost 11 per cent. This deficiency will decrease during the immediately following years but will not be eliminated until the present construction program can be greatly expanded.*
5. MANUFACTURING CAPACITY *of the country for the production of heavy electric power equipment is adequate not only to meet the normal home needs but for the export of a considerable amount of equipment. New license agreements with leading manufacturers abroad provide for the production of equipment of advanced designs. The estimated full manufacturing capacity for the production of electric-generating equipment is 3,000,000 kilowatts per year.*

of Electric Power Companies, steam generation in Japan can be only supplementary to hydro generation. Future hydro development should include "hydro plants with regulating ponds and either steam power plants or the reservoir-type power plants in proper . . . ratio." Because of the time needed to build hydro plants, an early start is important. Meanwhile, to meet the immediate needs, steam plants should be constructed. Almost all present steam plants in Japan are obsolete and inefficient. Modern steam plants should be substituted as fast as possible.

To counteract the high price of Japanese coal, mining should be mechanized and otherwise stimulated; coal price fluctuations should be checked. In the absence of a great reduction in shipping rates or the availability of mainland Asiatic coal, continued importation of foreign coal is too costly. Modernization of the steam plants will reduce coal costs. A plan to use low-grade coal in or near the coal-producting regions may reduce the cost of steam power generation. Increased use of oil and railroad electrification can contribute to a solution of the coal problem.

To reduce the power loss, which in 1951 was fixed at 27.5 per cent, the federation listed a series of steps. In the next five years the industry planned to spend 30 billion yen for such ends as raising transmission voltage from 30 to 60 kilovolts; installing larger conductors and additional lines; building high-tension transmission lines into load centers; and increasing and improving condenser capacity.

Distribution voltage will be increased; the number of circuits will be increased; and distribution equipment generally will be modernized and improved. By building more substations, the length of transmission lines will tend to be shortened. Single-phase 3-wire distribution will be adopted throughout. Theft of power by flat-rate consumers will be checked by use of current limiters and integrating watt-hour meters.

Electric Power Survey Organized

PATTERNED after the American practice, Japan has instituted a semiannual electric power survey, the first report of which, dated October, 1952, appeared last November. The survey was inaugurated with American help. At the Japanese government's request, the Edison Electric Institute nominated two members to go to Japan for the purpose: F. Douglas Campbell of The Detroit Edison Company, and Leroy L. Hinckley of the Pacific Gas and Electric Company. They spent from September 6th to November 19th in Japan.

To make this and subsequent surveys, Japan created the Japan Electric Power Survey Committee, representing the utilities, users, and equipment manufacturers. Its first report appeared in Japanese and English editions. Adoption of this survey is regarded as a significant forward step in the collection of periodic data so essential to proper economic planning, review, and analysis. The report embraces the electric power situation and production schedule and production capabilities for the manufacture of heavy electric power equipment in Japan.

The survey team termed Japan's electric power situation as "very

acute." This it attributed to increasing demand and lack of an adequately balanced power supply. Unless some corrective measures are taken to increase generating capacity, the national industrial strength will be impaired, the report observed. In the realization of the problem the Japanese government and the electric power industry stress the importance of a progressive power development program.

Manufacturing Capacity Not Fully Engaged

CONCERNING Japan's manufacturing facilities for heavy electric power equipment, Japan's first power survey report, issued in November, 1952, is optimistic. Japan has the factories and the labor force as well as most of the required materials, it states. "Most types of materials required are available in Japan and at present only those required for certain parts of high-pressure, high-temperature steam turbines and boilers must be imported."

During the past two years manufacturers have been engaged in a program of plant expansion, replacement, and modernization of production facilities at a cost of about $3,500,000. Provision has been made for more rigid control of manufacturing processes, improvement in the quality of output, and lower production costs. Units of larger individual capacity may now be manufactured. Japanese manufacturers, moreover, have arranged licensing agreements with American, Swiss, Swedish, and German firms covering generators, steam turbines, boilers, hydraulic turbines, and auxiliary equipment. These arrangements will enable Japan to improve the quality of its electric power equipment.

The total capacity of generators for steam turbines on order in Japanese plants on October 1, 1952, was 342,350 kilowatts, 19 per cent of which was for industrial firms and the rest for utilities. During the preceding twenty-one months the capacity shipped was 245,700 kilowatts, 32 per cent of which went abroad. As of October 1st there were no export orders on hand. Production capacity open for additional orders in 1953 was then given as 460,000 kilowatts and for 1954, 1,000,000 kilowatts. About half of the latter is available for the production of units of 50,000 kilowatts and larger.

WHAT is true of capacity for generators for steam turbines is true also of capacity for making generators for hydraulic turbines, steam-generator boilers, steam turbines, hydraulic turbines, power transformers, and the like. To quote the report:

¶ "THE *main task of modernizing and expanding Japan's electric power industry must rest on Japanese shoulders. Even with an adequate supply of industrial electric power the economic problems faced by Japan abroad and at home will be of major proportions; but without a greatly strengthened power supply Japan will never be able to solve them.*"

. . . Japan's production of heavy electric power equipment has increased rapidly since the beginning of 1950 with most of the production being for its own use. For steam turbines and their generators, and for hydraulic turbines and their generators, the scheduled production for 1953 is considerably higher than for either of the previous two years. In each case, however, the presently scheduled production for 1953 occupies only about one-half of the estimated full productive capacity for that year. . . .

Although considerably more new generating capacity will be required in the country during the years covered by this report, the estimates of open manufacturing capacity shown indicate that the country's needs are well within the productive capacity of its manufacturing firms. In fact, the potential productive capacity is such that, in addition to supplying the home needs, Japan can furnish a considerable amount of capacity to other nations requiring heavy electric power equipment.

In view of Japan's facilities for manufacturing all sorts of power equipment, the first use to which new dollar loans would be applied would be—as already mentioned—to bring in prototype high-efficiency thermal equipment, which could then be copied by Japanese factories. Loan proceeds also would be used to pay for some imported civil engineering equipment for hydro projects and for some engineering services. Apart from these applications the proceeds of a World Bank loan would serve to pay for imports of necessary materials and as general support to Japan in its economic relations with the rest of the world. The local-currency counterpart of loan proceeds not needed for specific power equipment and engineering services would be earmarked for power purposes.

World Bank Proceeding Cautiously

Although Japan has been treated most generously by the United States since the war, it would not be wise to count too heavily on American dollars to implement the various plans for strengthening and expanding the power supply. During a brief visit to Japan at the time when the World Bank's mission was on the ground, the bank's vice president, Robert L. Garner, advised the Japanese to the following effect:

"For what must be done at home," said Mr. Garner, "Japan must rely primarily on her own resources. We have found that many people here place far too much reliance on possible borrowing from abroad. It is not in the interest of Japan, which has always taken justifiable pride in honoring her debts, to incur a volume of indebtedness beyond her capacity to service. Japan's limited ability to earn dollars in international trade severely restricts her ability to contract additional dollar indebtedness.

"Shortage of capital is undoubtedly a crucial problem. In the last analysis this problem can be solved only by promoting greater savings and by insuring that available capital is used only for the most essential requirements. Japan needs a plan of action for this purpose, and a determination to use economic and financial policies to translate this plan into reality. . . .

"There are large essential requirements in agriculture, transport, power, and other fields which can only be met from government funds. Moreover, for some time to come voluntary sav-

ings by individuals and business are unlikely to be sufficient.

"ABOVE all, investment requirements must be curtailed and kept within the bounds of capital availability. We have been impressed by the multitude of ambitious investment plans in this country. There is an urgent need for co-ordination of these plans and for concentration on the most essential projects. Japan cannot afford to waste her limited capital resources.

"There must be investment priorities, and government in co-operation with business will need to see that they are observed. We are sure that in any investment program high priority will have to be given to electric power, reduction of costs in the basic industries of coal, iron, and steel, increase in food production, and expansion in rail capacity. . . .

"On this basis the International Bank will consider what contribution it can make to carry out this self-help program. Any decision of this kind will, of course, have to be made in the light of the bank's assessment of Japan's capacity to repay loans. The bank considers Japan a most important member country and will explore every avenue of assisting Japan; both directly and indirectly, in achieving a self-supporting economy."

ELECTRIC power obviously poses a major economic problem for Japan's future. Toward its solution the United States already has made important contributions and, directly or indirectly, will make more in the future. But such help will be limited. The main task of modernizing and expanding Japan's electric power industry must rest on Japanese shoulders. Even with an adequate supply of industrial electric power the economic problems faced by Japan abroad and at home will be of major proportions; but without a greatly strengthened power supply Japan will never be able to solve them.

Changing the Socialistic Course

"HOW *can this trend [of government in the electric business] not only be halted, but reversed? The electric companies believe it can be accomplished by Congress passing a sound Federal power-marketing policy, which would permit the companies to build the power projects where feasible, at all Federal dams constructed for reclamation, flood control, or other purposes. They believe the electric power industry should be sold the power now generated at Federal projects at rates fair both to the Federal government and to the companies, and that they should be permitted to transmit it to load centers for distribution to consumers at rates regulated by state public utility commissions or other regulatory bodies."*

—P. L. SMITH,
President, National Association of Electric Companies.

Salt River Project—A Reclamation First

Salt River Valley Water Users' Association of Arizona this year celebrated its golden anniversary. It was the first reclamation project to get Federal aid under the Reclamation Act. It was also one of the very earliest co-operatives in the reclamation and electric production business. This is the story of how this pioneer reclamation project has developed in co-operation with the private electric utility system of Arizona (to which it sells a considerable portion of its power production).

By HENRY F. UNGER*

To the uninitiated, Arizona is a land of sprawling dryness, of brooding loneliness, where only the most hardy produce can survive. To them, Arizona is a desert where the little rain that falls is sucked up by the insatiable land.

But a closer look, particularly in the Salt river valley, reveals another type of land.

Through the eyes of the farmer there, the Salt river valley is a lush paradise where rain is ordered when needed and where millions of dollars are brought into the coffers of the farmers through the sale of unexcelled products.

You wonder who waves this magic wand that brings water into the dusty fields and converts them into profitable money-makers. Actually no wand-waving occurs. Only the hard work and foresight of a band of Arizona pioneers has produced this farm Utopia—all under the title of the Salt River project.

It was on February 14, 1903, that the articles of incorporation of the Salt River Valley Water Users' Association were first filed in Phoenix. This association, a band of farmer shareholders, operators of the Salt River project, agreed a half-century ago that there was a future in this valley and that it could be carved out without the aid of the government as owner of the project.

There are still some active farmers, and even city folks, who reminisce back to July 17, 1903, when the association dropped its swaddling clothes, latched onto the project with

*Professional writer, now resident in Phoenix, Arizona.

a future, and elected their first president. Two hundred thousand acres were pledged to the construction of the Tonto basin dam, later to be known as the Roosevelt dam.

Since that time, despite mountains of obstacles, the shareholders of the association, and every landholder is a shareholder, developed the operation into a prime model of reclamation.

ALTHOUGH the government had footed the bill for the erection of the Roosevelt dam, the association voiced loud complaints as to the final cost of the project. So loud did the complaints grow that the Secretary of the Interior appointed the Central Board of Review to determine the project's final cost.

The costs were compared by the board when received from the association and from representatives of the Reclamation Service. Disagreements arose and finally on February 20, 1917, a conference was held between the Secretary of the Interior and Arthur P. Davis, of the U. S. Reclamation Service, and association representatives. The Secretary announced that he was anxious to get rid of the project and that if the association would enter into a contract to take care of all future expenditures and to return the entire cost of the project, less the reductions recommended by the Central Board of Review, he would turn the entire project over to the association. The contract was worked out between the United States government and the association and signed on September 6, 1917. The association was in business on its own and it was to continue in business in such an amazing way that emulators of the project would eagerly watch its operation and attempt to do the same in their own territory. On its own the association, comprised of the valley farmers, took the reins and was able to trumpet to the world the success of a local enterprise.

TODAY, fifty years after that dream was converted into a reality, the Salt River project produced crops with a value of $60,000,000, the second highest value in crop yield during the entire history of the association. Today, in excess of 241,000 fertile acres make the project an all-year-round farmer paradise where farmers can have water when they want it, in the quantity desired, much like they would order a product at the local store. Blended with the omnipresent Arizona sun, the Salt river valley farmer can work on a strict planting table.

But the burgeoning agricultural prosperity and its allied money-making interests and the smooth-meshing operations of the association were not even a dream back in the late nineties. A severe drought almost paralyzed the Salt river valley. Out of the paralysis, today's prosperity was born. In 1889, alarmed at the lack of water, the settlers sent representatives to explore the canyons along the Salt river. The ideal spot was located about 85 miles from Phoenix. Tedious and long reports were made for possible dam sites, and the daring plan was unfolded before the brave pioneers. The intrepid settlers gasped when they heard the plan—a dam built 60 miles from the nearest railroad, 85 miles from the land it would water, and at a cost estimated between two to five million dollars.

PRESIDENT McKinley frowned on the idea and direct Federal aid went out the window for the present. Another vexing problem was the fact that every farmer jealously guarded the priority of his own water right. Time rushed along and the level of the water in the Salt river reached an all-time low for irrigation purposes.

Plans and counterplans brought no assistance to the valley. Finally, B. A. Fowler was selected to go to Washington to petition Congress for permission to bond the county. The subject of reclamation brought only icy stares. Certain elements called the plan "crazy." The Congressmen could not clearly see the value of building a dam so far from the land it would serve. But the rebuffs of Congressmen brought angry editorial tirades. The believers in the project refused to succumb.

Groping for a new approach, Fowler met a crusader for reclamation. He was George H. Maxwell, who was convinced that water for the valley was possible. Fowler soon discovered that Maxwell had teamed up with Representative Newlands of Nevada and had couched a reclamation bill for presentation to Congress. Maxwell's plan urged the government to make available for reclamation projects money already on hand from the sale of public lands.

Fowler recognized the genius in Maxwell, lawyer and engineer. Together they bothered every Congressman within arm's reach about the problem of irrigation. The death of President McKinley eliminated a big obstacle for the team. In his first message to Congress, President Theodore Roosevelt included a clause favoring Federal irrigation law. On June 17, 1902, the Hansbrough-Newlands Act was sent to the President for signature.

With the bill signed it was quickly discovered that no such plan had ever been evoked. The leaders recognized that there must be fairness to all farmers. Rights of canal companies were involved; the question of prior water rights was paramount, together with a host of other problems. No dam could be built by the government until the local issues of water rights could be threshed out.

GEORGE MAXWELL, who believed in plenty for all, maintained that prior water rights were only valuable when there was a lack of water. With the construction of the Tonto dam this lack would vanish. The people were urged to work out their own problems, and fast.

A committee was formed for this purpose. Judge Kibbey submitted his Kibbey Plan to the committee — a

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sort of Declaration of Independence for the farmers of the West.

The plan, vast in scope but honest and fair to the farmers, stipulated among many things that any landowner in the valley might ask for water and his demands should be met, so far as the supply permitted, in the order of prior right established by prior appropriation. The plan made the water users' association a public corporation owned by the shareholders, each acre of land in the valley represented by one share of stock. The shares were to be held and transmitted with the land.

The association's capital stock was set up at $3,750,000 divided into 250,000 shares, with a par value of $15 a share. The stock was paid up when the landowner had fulfilled his pro rata assessment for ten consecutive years.

To these other rights came the right to generate and distribute hydroelectric power and to operate at its option the entire distribution of irrigating water.

Differences dissolved and by October, 1903, a Bureau of Reclamation engineer proceeded with the preliminary steps in the construction of the Tonto basin dam with a capacity of 1,381,580 acre-feet. The building of this dam was an epic in itself. At one time it was the highest masonry dam in the world. Above the dam site, the waters of the Salt river were diverted by a canal 20 miles long. Cement was manufactured by the hydroelectric power generated at the mouth of this canal, near the dam site.

THE date, March 18, 1911, will remain a high mark in the history of the Salt river valley, and even in the world. On that day, ex-President Theodore Roosevelt and other prominent citizens dedicated the new, huge dam which would raise the economy of the valley to unprecedented heights.

The despairing look at parched lands was a thing of the past. Now the water users' association rolled up its sleeves and began the task of buying the existing canal systems in the valley and of developing the intricate job of delivering water to the land, which it still pursues faithfully today.

But soon it was evident that to continue to nourish the fertile lands with more water, more dams must be built and the storage facilities must be enlarged. One dam followed another, like gems in a priceless necklace. Granite Reef diversion dam arose just below the juncture of the Verde and Salt rivers. Here the water is diverted into the Arizona canal on the north side and into the South canal on the south side and sent on its way to other canals and laterals and onto the rich farming areas. During its 40-mile watery glide from Roosevelt dam to Granite Reef, the precious liquid released for irrigation followed the old channels of the Salt river.

THE farmers, represented by their board of governors, agreed to the construction of additional dams. First, there came Mormon Flat dam, located about 51 miles from Phoenix. With a storage capacity of 57,852 acre-feet, the dam cost $2,497,000 to complete and with its Canyon Lake was a proud addition in 1925. Horse Mesa dam, 65 miles from Phoenix was next on the construction line. Costing $5,248,000, the dam could impound 245,138 acre-feet and possessed a lake 17 miles long.

An Example of Co-operative Success

"THE Salt River Valley Water Users' Association is a typical example of the efforts and success that can result when men of vision band together, plan their work, and believe in one another. Without the association, the Salt river valley would be literally a ghost area. With it, the valley is a thriving land of agricultural and industrial goodness. The well-equipped and modern-thinking staffs of the association, through their many years of clever operation, intend to keep it prosperous and a good place in which to live."

Then the final touch in dam building on the Salt river was applied in 1928 when Stewart Mountain dam was begun. Located 41 miles from Phoenix, the dam added 69,765 acre-feet of water to the association's storage. Completed in 1930, the dam cost $2,839,000.

EAGER to control the erratic flow of the Verde river, the valley farmers through their association decided to build two more dams — this time on the Verde river side. Bartlett dam, finished in 1939 and 54 miles from Phoenix, brought 179,548 acre-feet capacity to the association and, with its height of 283 feet, it was considered the highest multiple-arch dam in the world. Costing the association $6,500,000, Bartlett dam got a buddy near by in the Horseshoe dam, which brought 142,830 acre-feet to the valley farmers.

Just as the new dams were added for more water protection in dry periods, so the water delivery system was improved. At capacity strength there are 2,076,713 acre-feet available for the valley farmers.

TODAY there is a vast difference between the pioneer delivery system and that now used by the farmers. Although the grade and canal locations of the early pioneers still remain, many miles of these carriers are now concrete lined and have modern diversion structures. This tremendous rehabilitation, based on the engineering know-how of the association's engineering department, has stifled the huge seepage loss prevalent during the early years of the project.

Today, water coming from a watershed of 13,000 square miles is carried along over 1,400 miles of canals and laterals and into the ditches of the

farmers. To operate the association's water distribution requires strict timing.

About 1,000,000 acre-feet of water will be delivered each year to the 12,000 farm units that make up the Salt River project.

But what is this water worth? The water users' association has calculated that it was worth $75 per acre-foot for agricultural purposes in 1952, based on the value of crops it would produce. At that rate the million acre-feet used by the 242,000 acres in the project alone were worth $75,000,000 during 1952. This is equal to $9 for every acre of the 8,320,000-acre watershed.

This is only a portion of the value of this water in the Salt river valley. Without the water there would be no farms, no homes, no cities, no industries. More than 350,000 people would have to move away. The Valley National Bank, largest in Arizona, estimated that the total production of these 350,000 people in 1952 came to $500,000,000. That would give a value produced by every acre of the vast watershed through its water at $60 per year.

The Salt River project is a thriving entity, sparked by the enterprising farmers who through their ingenuity and hard work and the know-how of their officials of the associaton have made the valley a good place in which to live and to make a living.

Last year the runoff into the reservoir system was computed to be 1,892,000 acre-feet—the seventh highest since 1913, or 201 per cent of the normal runoff. The net project storage was 1,216,807 acre-feet on December 31, 1952.

This was the highest year-end total storage since 1941.

The farmers in the valley are not resting on their laurels. They realize that they have one of the finest irrigation and reclamation projects in the world and the first one under the Reclamation Act. Because of their aggressiveness and desire to improve the project constantly, they spent in 1952 about $1,421,721 for construction and maintenance of canals to increase the now fine, efficient operation of the Salt River project. Typical of the new work is the new Highline pumping plant built at a cost of $200,000. It pumps water to higher ground to irrigate some 6,000 acres of rich farm land. It is the only place in the entire project where water is pumped uphill.

The Salt River Valley Water Users' Association is a typical example of the efforts and success that can result when men of vision band together, plan their work, and believe in one another. Without the association, the Salt river valley would be literally a ghost area. With it, the valley is a thriving land of agricultural and industrial goodness. The well-equipped and modern-thinking staffs of the association, through their many years of clever operation, intend to keep it prosperous and a good place in which to live.

The Salt River Valley Water Users' Association—a summation of fifty years of progress in the Valley of the Sun!

Washington and the Utilities

Interior's New Contract

SECRETARY McKay is expected to approve with little change the proposed 20-year contract between the Bonneville Administration and private power companies in the Pacific Northwest. There was no immediate reaction from earlier critics who said they needed more time to study the new proposal. Copies of the new contract were sent to all concerned with the request that they make their replies by September 10th. It was emphasized that the contract was still tentative until approved by Secretary McKay.

However, Bonneville Power Administrator Raver said he thought there would be "no major objection" to the new version which revises several key points. The effect of the contract is to make available to more than a million home owners and small business concerns some of the low-cost hydroelectric power generated in government-owned plants in the Pacific Northwest that has not been available to them heretofore "because they happen to receive their electric service from a utility company instead of from some form of publicly owned organization," Clarence Davis, Interior Department solicitor, stated.

The principal change (from former Interior policy) effected by the contract is that domestic and rural customers of the private utility companies are to receive, through those companies, a portion of their electric needs before big industry gets more power than it is now getting. Although the contract preserves "preference clause" privileges of all public bodies, Davis said "It places some limitation on the amount of government power which may be resold by public agencies to industries, to the disadvantage of domestic and rural customers of other marketing agencies." Under terms of the new contract, new industrial contracts will be limited to 10,000 kilowatts, which means that, in its net effect, the new contract will give more than a million customers of private utilities 1,500,000 kilowatts before additional power to new industry is made available.

INTERIOR officials say that less than one-third of the 1,500,000 kilowatts is actually available to anyone now. Unless a greatly accelerated program for new dams is carried on at once, by 1962 there will be no power available for either industry or the domestic customers of private utilities, because by that time the normal load growth of the preference customers will utilize all the power, and the date may be much sooner than 1962 unless some restrictions are placed on industrial loads that preference customers can put on their lines. If the power were available under the new plan, preference customers would now be receiving 1,800,000 kilowatts of firm power; industry, 1,120,000; and nine power utility companies, 1,500,000.

Other evidence that Interior is moving quietly to implement its recent general power policy statement (text published in PUBLIC UTILITIES FORTNIGHTLY, issue of September 10, 1953, page 384) was seen in developments within the department within the past fortnight. First, there was reorganization of the old Reclamation Bureau officials at the secondary level. The reorganization involved two assistants to ex-Reclamation Commissioner Straus who had been carried over from the old régime: Goodrich W. Lineweaver and Kenneth Markwell, both under congres-

sional fire during the 80th Congress for publicity and "propagandizing" activities on behalf of the bureau's power program at that time. They are now out of their old jobs. Secretary McKay abolished the post held by Markwell and reduced Lineweaver from assistant commissioner to the status of assistant to the commissioner.

The only other "carry-over" assistant still on duty is Harvey F. McPhail, a career official since 1919 and soon due for retirement. McPhail will retain his old post under the Reclamation Commissioner, Wilbur A. Dexheimer. The new commissioner stressed that engineers would now run the bureau.

ECHOES of the old charge that former Reclamation Bureau officials had been "propagandizing" the marketing of Federal project power were found in an address by Secretary of Interior McKay at the Commonwealth Club of California late in August. The Eisenhower administration will seek to avoid overstating the Federal generating stake in power, which, McKay said, now amounts to 11½ per cent of the nation's supply. This administration will not adopt the "more aggressive policy advocated by others" which would have Interior build a "vast system" of transmission lines leading several hundred miles from Federal generating plants. No member of the state-local community-private citizen-Federal government partnership should have a monopoly in the development of resources —"least of all the Federal government," McKay said.

Withdrawal of Interior from its past attempts to eclipse the hydro licensing functions of FPC was also noted in the McKay address. He repeated the pledge made in the statement on power policy that Interior will not "assume that we have the exclusive right or responsibility for the construction of dams or the generation, transmission, and sale of electric energy." McKay cited the Hell's Canyon Case in which Interior's former protest of the Federal Power Commission's right to issue a license has been withdrawn. He said it would be Interior's intention to follow the practice of recognizing the FPC as the "legally constituted judge" in such matters. Lengthy litigation and artificial obstacles to added power capacity were noted by McKay, doubtless referring to the Roanoke Rapids and Kings river controversies.

FPC Gas Items

IT begins to look as if the widely heralded FPC rate increase order for the United Fuel Gas Company might turn out to be more comfort to the rest of the gas utilities than to the particular pipeline company concerned. The commission's 68-page order purporting to allow United Fuel a 6¼ per cent rate of return was regarded by the gas industry generally as a precedent for more liberal return allowance. That may or may not turn out to be the case for other companies. (See, also, page 464.)

But if the proof of the pudding is in the eating, the Columbia Gas System subsidiary is saying that it just is not so. This view was reflected in the company's petition for rehearing, in which company officials complained that only a 3.69 per cent rate of return would be forthcoming, when applied to United's estimated 1953 sales, and not a 6¼ per cent rate. The ultimate effect of the FPC order would be to reduce net income by nearly $2,700,000 for 1953, United Fuel claimed.

United Fuel further contends in its petition for review that (1) there was an error in reducing the rate base by $3,700,000; (2) the allowance for annual operating expenses was erroneously reduced by about $2,000,000; (3) the computation of income taxes was incorrect; (4) the depreciation rates prescribed by the order are without support; (5) the method of allocation of costs is arbitrary and unreasonable and injurious to the financial position of United Fuel; (6) the rate form used by the commission usurps the rights of management. The application for review cites 18 points of contention between the company's management and the FPC staff and states that in

only one of these did the order accept management's conclusion over that of the staff.

THE FPC has moved promptly in the wake of its recent liberalization of regulations regarding the transmission of gas and electricity. On September 1st it issued an opinion and order authorizing Tennessee Gas Transmission Company, of Houston, Texas, and Niagara Gas Transmission Limited, of Toronto, Canada, to export natural gas from the United States for ultimate consumption in the Toronto, Ontario, market area.

The opinion and order also authorized a transportation arrangement whereby Tennessee will transport natural gas from the southwestern United States for delivery to Iroquois Gas Corporation, of Buffalo, New York, at points in Pennsylvania and New York.

Under the export plan, Niagara will purchase natural gas in the Gulf coast area of the southwestern United States for transportation by Tennessee to a point on the U. S.-Canadian boundary near Niagara Falls, New York. The gas will there be delivered to Niagara which will transport it to the Toronto area where it will be resold to Consumers Gas Company for resale for ultimate public consumption. Niagara is owned by Tennessee and Consumers.

The commission authorized Tennessee to deliver a maximum of 22.6 billion cubic feet of natural gas annually to Niagara, at a rate of not more than 115,600,000 cubic feet per day. Average deliveries will be approximately 62,000,000 cubic feet daily. Tennessee will transport a maximum of 49,728,000 cubic feet per day for Iroquois.

Commissioner Nelson Lee Smith dissented on the ground that there had not been sufficient showing that the proposed arrangement met the statutory tests of being required by the public convenience and necessity or in conformity with the public interest.

THINGS are a little quieter now along the controversial New England gas marketing front. Natural gas moved into the Boston area over the Labor Day holiday, following the removal of a temporary restriction by a Federal judge in Newark. U. S. District Judge Modarelli lifted a temporary order which kept Algonquin Gas Transmission Company from allowing the gas to go through its pipeline to Boston. The order had been obtained by two New Jersey realty companies involved in damage suits growing out of certain grading operations which the realty companies claim could not be completed in safety if the pipeline were in operation. The Federal judge acted upon the stipulation by Algonquin Gas Transmission that any necessary grading work along the pipeline right of way could be done in safety.

However, CIO state organizations in Rhode Island and Connecticut are not helping the advent of natural gas to go smoothly. In Rhode Island the CIO asked a public hearing before the state public utility administrator on proposed rates for natural gas soon to be introduced in the Rhode Island area. In Connecticut the CIO state council asked the governor to seek a rehearing before the FPC on its decision allocating the New England natural gas market to two pipeline companies instead of one.

New Resources Group

CONFERENCES on natural resource problems are scheduled for December 2nd to 4th in the nation's capital. The Ford Foundation, sponsor of "Mid-Century Conference on Resources for the Future," now plans to go ahead with its once postponed conference.

The conference will not endorse programs, R. G. Gustavson, president of Resources for the Future, Inc., announced recently. This was an attempt to spike rumors circulated earlier that the conference would seek to promote the recommendations of the Paley Commission (on mineral resources), Morris Llewellyn Cooke's Water Resources Policy Commission, or the recommendations of the 1950 Hoover Commission on natural resources.

Exchange Calls And Gossip

Bell System Asks FCC for Rate Boosts

The Bell telephone companies have filed with the Federal Communications Commission revised long-distance phone rates which would increase by about 8 per cent the present $830,000,000 annual revenues from interstate long-distance service. No changes were proposed in the basic 3-minute initial period daytime rates.

The companies have proposed increases, however, in most of the initial 3-minute period night and Sunday telephone rates and in all overtime charges. The rates filed will become effective October 1st, unless they are suspended by the FCC pending a hearing.

The revised rate plan calls for increases of 5 cents in the charge for each one-minute overtime period on station-to-station and person-to-person interstate calls involving most distances above 24 miles. Increases of 5 to 10 cents are provided in the initial 3-minute period rates for night and Sunday calls involving most distances between 41 and 2,300 miles.

The Bell system companies told the FCC earnings from interstate services had been decreasing for the last several years and are now at a critically low level. The increased revenues and net earnings would help provide "prompt relief which is urgently needed," they said, in justifying the rates.

Interstate operating results from the 12-month period ended June 30th this year indicated a return of 4.83 per cent on claimed net investment, the companies stated. It was estimated that had the proposed new rates been in effect during that year the return on net investment would have been about 1.5 per cent more. The American Telephone and Telegraph Company said in a statement that "aside from a few minor up-and-down adjustments, this is the first increase in long-distance telephone rates since 1919."

CWA-Bell Strike Settlements

Although the violent Indiana Bell Telephone strike rages on, the CIO Communications Workers of America has managed to reach a settlement with Southwestern Bell Telephone Company and to avoid a strike of 22,000 Long Lines telephone workers in 40 states and the District of Columbia. Southwestern Bell workers were satisfied they "got close to what we set out to get," as they ended an 11-day strike against the company.

Settlement of the Southwestern Bell strike came after an all-night session, at which union and company representatives, aided by Federal and state mediators, drafted a new one-year contract. It calls for a general weekly wage increase ranging from $1.50 to $3, depending on seniority and job classification. The new weekly wage scale ranges from $46 to $98. The top scale for women employees now is $58.50.

The wage question, which also included job reclassification, time differentials, and reclassification of thirteen towns in Southwestern Bell's 500-town area, was settled August 24th. The stumbling block that prolonged the strike was a "protection of service" clause, demanded by the company. Frank P. Lonergan, vice president of the union's

District 6, said the final wording removed objectionable phrases.

Because of the reclassification of jobs and towns some workers will receive as much as a $10 weekly increase. The period in which workers will gain the maximum wage scale was reduced from six and a half years to six years. The new contract will cost the company $8,000,000 annually. A company statement said that the only way to recover the money provided in new wage increases will be through increased telephone rates. "This will hardly be a popular statement," the Southwestern Bell statement said, "but it will be the truth and the public ought to know it."

A STRIKE threat by the Long Lines telephone workers of the American Telephone and Telegraph Company was averted when an agreement was reached on higher wages and fringe benefits between the AT&T and the CWA. The agreement grants wage increases of approximately $2 per week, provides for an improved vacation clause, and shortens the interval required for an employee to reach the maximum wage level from six and a half years to six years. A joint union and management statement said the agreement would cost the company $3,200,000 a year.

The agreement, reached after three months of bargaining, is subject to ratification by union members on or before October 5th. It covers a period of twelve and a half months and leaves open the possibility of a still greater wage increase. A further wage increase, the statement said, would become automatic if a settlement of the Indiana Bell strike, or negotiations with the Chesapeake & Potomac Telephone Company call for a greater increase than the one provided for in the agreement.

In New York city, where the highest scale prevails, the AT&T-CWA agreement raises the top weekly basic wage rate for maintenance workers from $104 to $106.50 and for long-distance operators from $60.50 to $62.50. The wages scale downward from there, depending on the cost of living. In Buffalo, for example, the agreement calls for weekly wages of $98.50 for maintenance workers and $60 for long-distance operators. The lowest scale in the fifteen key cities affected by the agreement is $98.50 and $60 for maintenance workers and operators, respectively, in Memphis and Louisville. The agreement is similar to one reached between the union and Southwestern Bell. In the unlikely event that it is not ratified by union members by October 5th, the existing contract will remain in force. A CWA statement, issued shortly after the agreement was announced, said the union "gained substantially the $2 to $3 pattern established in twenty-four other settlements in Bell system bargaining."

North Carolina High Court to Review Rate Case

THE Southern Bell Telephone & Telegraph rate increase controversy will probably have to be decided by the North Carolina Supreme Court. A lower court ruling that the state public utilities commission order granting the company an increase should be revised made a high court review likely. In a part of the lower court's ruling, it was held that the commission should not have permitted Southern Bell to include allowances for cash working capital and materials and supplies in its rate base. In part, it was held that the commission should have permitted the company to earn on the present fair value of its properties rather than on original cost less depreciation.

The issues in this case are almost identical to those raised in similar appeals from a commission order granting an increase to Carolina Telephone & Telegraph Company in eastern North Carolina. If the supreme court should agree that cash working capital and allowances for materials and supplies are not to be considered as company investments, both Southern Bell and Carolina might have their newly increased rates reduced. But if it should agree with the lower court that the companies are entitled to earn on the present "fair value" of their

properties, the companies might be able to ask for more.

Southern Bell has asked the commission for authority to charge its customers $3,426,000 more a year. The commission allowed $1,648,056. Both the company and the attorney general's office appealed. The attorney general, as counsel for the public, contended that the increase was not justified by the evidence. The company contended it was too small.

In remanding the case to the commission for correction, the lower court held that the commission should: (1) determine the company's needs after considering all "relevant facts" as to the "present fair value" of Southern Bell's properties used in intrastate service in North Carolina. The court declared that the original cost less depreciation was only one factor to be considered. (2) Exclude as factors for consideration $759,079 in cash working capital and $161,517 allowed for materials and supplies "save and except such amounts, if any, as the company shall identify and establish as investment funds as distinguished from tax accrual funds made available by its customers." When money paid by customers for future payment of company taxes is used for company purposes, the court explained, the company should not be permitted to earn a return on the money it actually has not spent. (3) Allow depreciation in such an amount "as in its judgment" will be sufficient to restore at present costs properties consumed in current operations. (4) Establish rates which, "in its judgment," will produce net operating income approximating the amount needed to provide what the commission considers a fair return.

U. S. Phones Near 50,000,000 Mark

Telephones in the United States, increasing at the rate of 200,000 a month, should pass 50,000,000 some time in October. American Telephone and Telegraph statistics showed 49,250,000 telephones in service for all companies June 30th—an increase of about 1,200,000 in the first six months of 1953.

AT&T subsidiaries in the Bell system maintained almost 40,400,000 telephones in the June 30th total. The remainder, slightly under 8,900,000, were operated by 5,234 other companies, almost all of which were connected with the Bell system for long-distance communication. The latter total included nearly 1,300,000 telephones on the lines of Southern New England and Cincinnati & Suburban companies which are partially owned but not controlled by AT&T.

General Telephone Corporation and its subsidiaries, largest independent in the field, had 1,600,000 telephones in service at its latest report.

Independents Face Boost in Minimum Wage

Small independent telephone companies may soon be faced with the problem of meeting an increase in the minimum hourly wage which the Eisenhower administration is understood to be ready to support at the next session of Congress. Because of their local operations and limited financial resources, some of the smaller companies have opposed in the past any increase in the present 75-cent minimum wage. It appears likely now, however, that a resolution introduced in the last session of Congress by Senator Kennedy (Democrat, Massachusetts), calling for an increase, will receive favorable action when Congress meets again.

Ex-Secretary of Labor Durkin was known to have been favorable to the increase and the Labor Department is presently working on a report to be made to Congress on Kennedy's resolution. The AFL and CIO unions are seeking a boost in the minimum wage to $1.25, but it is understood that the administration is not ready to go above $1 at this time. Since some increase appears certain, small telephone companies will probably have to settle for an understanding that the minimum will be kept at $1 an hour.

Financial News and Comment

By OWEN ELY

Listing of Utility Stocks

THE accompanying table indicates the extent to which utility stocks are listed on the New York Stock Exchange or the American Stock Exchange. The list is not all-inclusive but is based on the monthly tables appearing in this department, which is broad enough coverage to permit general conclusions. Following are the percentages for all utility groups:

Listed on New York Stock Exchange	39%
Listed on American Stock Exchange	9
Over-counter, or listed out-of-town	52
	100%

The tabulation reveals that all but four of the 31 companies with revenues in excess of $100,000,000 per year are listed on the New York Stock Exchange; three are traded on the American Stock Exchange; and only one (Tennessee Gas Transmission) is traded over-counter. As the size of the utilities declines, the proportion that is listed shrinks rapidly. Thus, of the companies with less than $25,000,000 revenues per annum, only 15 are listed on the Big Board and 14 listed or dealt in on the American Exchange, while 100 are unlisted. Of the smallest group, under $10,000,000 revenues, only 2 are on the Big Board and 8 on the American Exchange, while 72 are over-counter.

It appears likely that many smaller companies cannot meet the listing requirements of the two leading stock exchanges. The New York Stock Exchange has minimum standards as to size and requires a certain degree of "distribution" among public holders as a prerequisite to listing, and stocks of the smaller companies are probably closely held in many instances.

IN the case of some of the larger companies which have not yet sought listing, the opinion of the management appears to be that chances for appreciation of the stock are enhanced by its remaining over-counter. Dealers in unlisted stocks can usually obtain larger per share profits from net trades, as compared with board commissions, and this is said to furnish a greater incentive to these dealers (as contrasted with member houses) to recommend the stock to their customers, issue special literature to arouse customers' interest, etc.

However, in the case of the larger

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utilities, the desirability of maintaining an orderly market, with accurate quotations always available, is an important factor, particularly considering the large amounts of stock which must be sold every year or so to take care of construction programs.

On the over-counter market, the quotations appearing in the newspapers usually show a considerably larger spread between bid and asked than the actual "inside" markets. It apears to be customary to "mark up" the offered side of the market in the published quotations. The exchange quotations seem more accurate in this respect. There are other advantages also, of course, such as the daily record of trading range and volume. Many out-of-town papers pay little or no attention to over-counter quotations.

PERCENTAGES OF UTILITY COMMON STOCKS WHICH ARE LISTED AND UNLISTED

Grouped As to Size and Industry Divisions
(Column Heads Indicate Millions of Dollars Revenues)

	$100 +	*$50-100*	*$25-50*	*$10-25*	*Under $10*	*Total*
Electric Utilities						
New York Stock Exchange	16	18	22	9	1	66
American Stock Exchange	—	1	—	4	4	9
*Over-counter	—	4	10	13	32	59
Total	16	23	32	26	37	134
Gas Utilities						
New York Stock Exchange	6	4	6	2	—	18
American Stock Exchange	—	—	2	2	4	8
*Over-counter	1	2	2	10	21	36
Total	7	6	10	14	25	62
Telephone Companies						
New York Stock Exchange	4	—	—	1	—	5
American Stock Exchange	3	—	—	—	—	3
*Over-counter	—	1	1	3	4	9
Total	7	1	1	4	4	17
Transit Companies						
New York Stock Exchange	1	—	1	1	—	3
American Stock Exchange	—	—	1	—	—	1
*Over-counter	—	1	1	2	2	6
Total	1	1	3	3	2	10
Water Utilities						
New York Stock Exchange	—	—	1	—	1	2
American Stock Exchange	—	—	—	—	—	—
*Over-counter	—	—	—	—	13	13
Total	—	—	1	—	14	15
All Groups						
New York Stock Exchange	27	22	30	13	2	94
American Stock Exchange	3	1	3	6	8	21
*Over-counter	1	8	14	28	72	123
Total	31	31	47	47	82	238

*Include some issues listed on out-of-town exchanges such as Boston Edison.

Dayton Power & Light Company

JOSEPHTHAL & Co. (New York city) has recently analyzed the outlook for Dayton Power & Light Company's common stock, pointing out that the company is in an unusually favorable position to benefit from future increases in service demands, because of its large reserve generating capacity and the adequacy of its electric transmission and distributing systems.

The city of Dayton comprises only about 30 per cent of the 850,000 population served by the company so that the commercial and industrial activities in Dayton (where the manufacture of cash registers is largely concentrated) are balanced by the rural and small-community character of the surrounding area. Thus there is a good balance between metropolitan and rural demand, and a load factor close to 60 per cent. Also, the city of Dayton was not strictly a war-production area, and while it enjoyed excellent growth during the war it has had no conversion problems and could easily absorb the expanded population. The compactness of the area has made electric operations more efficient, and the company has not found it necessary thus far to obtain any postwar increase in electric rates other than a revision of its fuel adjustment clause.

IN the earlier postwar period Dayton Power & Light's capacity was inadequate and it was forced to buy high-cost power, increasing power costs sharply in 1948 as compared with 1945. However, with the completion of large new capacity power costs have declined steadily, and last year dropped back to the 1945 level of 4.3 mills per kilowatt hour despite a 40 per cent increase in coal prices. The effects of these generating economies, together with the fuel adjustment clause, were reflected in the 1949-50 earnings. However, these gains were diluted by the sharp increase in the number of common shares—the equity ratio has been raised from 28 per cent at the end of 1947 to 37 per cent at the end of 1952.

THIS year's construction program of $14,000,000 should only require about $10,000,000 new capital, Josephthal & Co. estimates, and Dayton can probably raise this amount by sale of bonds without the debt ratio rising over 50 per cent. In fact, with the major expansion program now largely completed, it is thought likely that further equity financing may be avoided over the next few years.

Recent earnings were handicapped by the adverse showing of the gas division, resulting from the rate increases collected under bond by the Ohio Fuel Gas Company, which supplies practically all the company's requirements. Recently, however, Dayton has obtained increases in gas rates sufficient to offset the higher cost of purchased gas, and on a *pro forma* basis this should add about 40 cents a share to current earnings.

The electric service should also benefit from the completion of two 60,000-kilowatt generating units. Hence the company should now be in position to realize the full benefits of its postwar expansion program, and according to the Josephthal estimate may be able to develop earnings of over $3.25 in 1954. Under these conditions an eventual increase in the $2 dividend to $2.20 would seem justified.

Columbia Gas Dissatisfied with FPC Rate Decision

REFERRING to the decision of the Federal Power Commission in the rate case of United Fuel Gas Company, a subsidiary of Columbia Gas System, summarized by this department in the August 27th issue (pages 312-16), the company has now asked for a rehearing. Chairman Crocker and President Young of Columbia Gas state that a careful study of the commission's 68-page order shows that the rates prescribed will produce not a 6½ per cent rate of return when applied to United Fuel's estimated 1953 sales, but only 3.69 per cent.

It had been previously reported in the press that United Fuel had been granted a rate increase of about $10,000,000 com-

pared with the requested $14,000,000. But officials now estimate that the ultimate net effect of the order on the system's consolidated earnings for the year 1953 would be to *reduce* those earnings by nearly $2,700,000. While it was conceded that the language of the order relating to the rate of return "is quite realistic and sympathetic to the needs of United Fuel," the statistics introduced by an FPC staff witness and to which the commission's analysis was applied are said to be quite misleading. The company's press release summarized the principal discrepancies as follows:

THERE was an error in reducing United Fuel's rate base by $3,700,000. The allowance for annual operating expenses was erroneously reduced by about $2,000,000; this resulted from an assumption that United Fuel would produce at no additional cost except depletion, more gas from its own wells than it believes advisable. The computation of income taxes was incorrect. The depreciation rates prescribed by the order are without support. The method of allocation of costs is arbitrary and unreasonable and injurious to the financial position of United Fuel. The prescribed rate form is contrary to the interests of consumers and investors and usurps the rights of management.

The application for a rehearing cites 18 points of contention between the company's management and the FPC staff and stated that in only one of these did the order accept management's conclusion over that of the FPC's legal staff.

FPC Chairman Kuykendall said his commission has not had time to analyze United Fuel's request for a rehearing. But, he said, "If we find FPC has made any errors in computing rate increases for the company we will want to correct them. The commission wants to give the company the rate of return it said it would."

August Financing

NEW money utility offerings during the month of August were at a remarkably low ebb, even considering the vacation period. Only one important bond issue, $30,000,000 Southern California Edison first 3⅝ of 1978, were publicly offered, although five smaller issues aggregating nearly $40,000,000 were privately placed. The Southern California Edison issue, rated Aa by Moody, was offered August 26th at 100 to yield 3.62 per cent, with an underwriter's spread of .56. The issue was reported by the Irving Trust Company to be fairly well received.

One preferred stock issue, 20,000 shares of Wisconsin Power & Light 4.80 per cent preferred ($100 par), was offered at par to preferred stockholders on a rights' basis, with underwriters' commissions and compensation to soliciting dealer. Rights expired September 8th.

In the common stock division there was also only one issue during August—329,124 shares of Wisconsin Power & Light offered to stockholders on a 1-for-7 basis with unsubscribed stock offered to em-

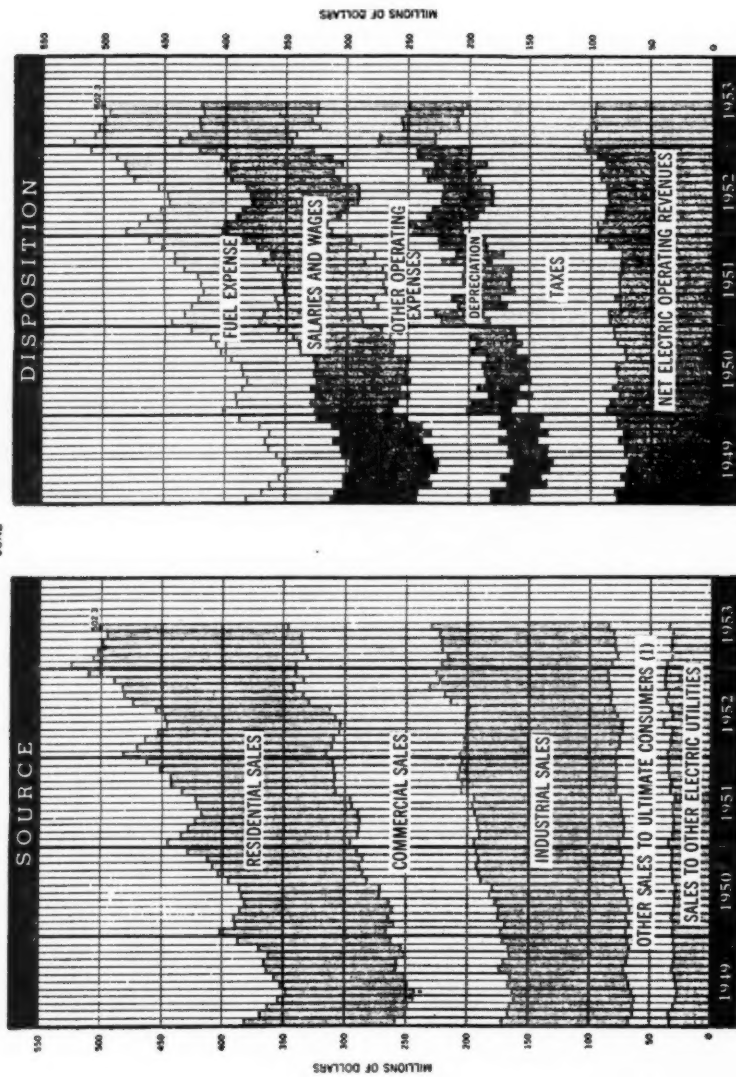
CURRENT YIELD YARDSTICKS

	Recent Yield	*1953 Range High*	*1953 Range Low*	*1952 Range High*	*1952 Range Low*
U. S. Long-term Bonds—Taxable	2.98%	3.15%	2.78%	2.78%	2.56%
Utility Bonds—Aaa	3.31	3.43	3.01	3.08	2.93
Aa	3.40	3.59	3.07	3.11	2.99
A	3.63	3.72	3.23	3.31	3.21
Baa	3.91	3.91	3.50	3.58	3.46
Utility Preferred Stocks—High-grade	4.28	4.45	4.01	4.24	3.94
Medium-grade	4.69	4.87	4.43	4.71	4.33
Electric Utility Common Stocks	5.55	5.72	5.01	5.63	5.07

Latest available Moody indices are used for utility bonds and stocks; Standard & Poor's indices for government bonds.

CLASSES A AND B PRIVATELY OWNED ELECTRIC UTILITIES IN THE UNITED STATES

SOURCE AND DISPOSITION OF ELECTRIC OPERATING REVENUES



Federal Power Commission

ployees. Rights expired September 8th. The issue is being underwritten, and soliciting dealers are also compensated.

A fairly heavy volume of financing for September seems indicated.

Low Relative Cost of Gas Explains Rapid Expansion Of Gas Industry

THE accompanying chart goes far toward explaining the huge expansion of the gas utilities during the past decade. The price of competing fuels—coal and fuel oil—more than doubled in price during the period 1940-52, while that of gas advanced only moderately. As compared with the cost of living (consumers' price index—see grocery basket marked "all items") gas increased only about 5 per cent during this period, while other consumer costs rose about 90 per cent. During 1953 the cost of gas probably advanced another 5 per cent or more, as the result of rising field prices, but the comparison is still valid.

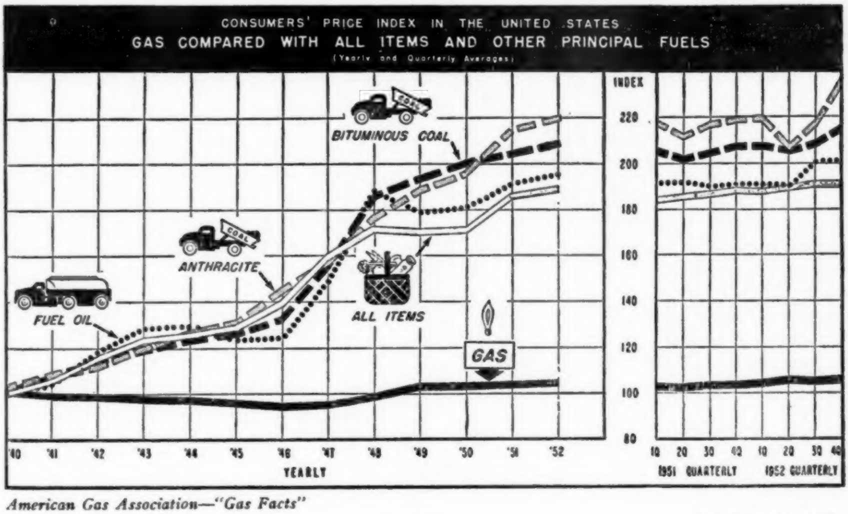
In particular, the chart explains the trend toward house heating by gas, and the high percentage of conversions which have occurred as natural gas has become available through completion of pipelines.

FPC Blocks Bond Sale

THE Federal Power Commission has conditionally authorized a current plan of Mountain States Power Company to sell $8,000,000 of bonds to seven insurance companies without competitive bidding. The FPC action followed a protest by Halsey, Stuart & Co., Inc. The investment banking firm told the commission that the company could get better terms at competitive bidding in the open market. FPC advised the company to change the terms and ask for approval in sixty days, if it still wants to sell the bonds without competitive bidding.

This was the second instance in a week in which the investment banking house intervened in a utility company's private sale of securities. Halsey, Stuart had previously filed a petition with the Georgia Public Service Commission for intervention in a proposed negotiated sale of $7,000,000 of Atlanta Gas Light Company bonds.

In that petition, it claimed that "the proposed private sale is not in the best



American Gas Association—"Gas Facts"

NEW MONEY UTILITY OFFERINGS IN AUGUST, 1953

Electric Utilities	
Bonds—Sold to public	$29,832,000
Sold privately	10,500,000
Preferred—	
Offered to stockholders	1,980,000
Common—	
Offered to stockholders	6,353,000
	$48,665,000
Gas Utilities	
Bonds—Sold privately	$29,250,000
Total	$77,915,000

Source—Irving Trust Company.

interests of the company, the stockholders, or the ratepayers." The Chicago investment firm maintained that Atlanta Gas Light Company would receive "benefit of lower net interest cost on such long-term debt capital if such issue were offered by open, competitive bidding instead of the proposed closed, negotiated transaction."

The Atlanta Gas Light bonds are to be sold to seven insurance companies on September 30th.

FINANCIAL DATA ON ELECTRIC UTILITY STOCKS

1952 Rev. (Mill.)			8/31/53 Price About	Div. Rate	Current Yield	—Share Earnings*— Cur. Period	% Increase	12 Mos. Ended	Price-Earns. Ratio	Dividend Payout
$206	S	American Gas & Elec.	30	$1.64#	5.5%	$2.55**	16%	July	11.8	64%
27	O	Arizona Public Service	17	.90	5.3	1.25	29	July	13.6	72
7	O	Arkansas Mo. Power	19	1.10	5.8	1.86	39	June	10.2	59
23	S	Atlantic City Elec.	28	1.50	5.4	1.92	13	July	14.6	78
5	O	Bangor Hydro-Elec.	27	1.80	6.7	1.80	D5	June	15.0	100
3	O	Black Hills P. & L.	20	1.28	6.4	1.83	8	Apr.	10.9	70
79	B	Boston Edison	47	2.80	6.0	3.36	NC	May	14.0	83
15	A	California Elec. Pr.	10	.60	6.0	.83	48	June	12.0	72
14	O	Calif. Oregon Pr.	26	1.60	6.2	1.65	12	May	15.8	97
48	S	Carolina P. & L.	38	2.00#	5.3	2.94	8	July	12.9	68
21	S	Central Hudson G. & E.	12	.70	5.8	.91	17	June	13.2	77
15	O	Central Ill. E. & G.	27	1.60	5.9	2.30	4	June	11.7	70
25	S	Central Ill. Light	38	2.20	5.8	3.24	19	July	11.7	68
35	S	Central Ill. P. S.	18	1.20	6.7	1.53	2	June	11.8	78
8	O	Cent. Louisiana Elec.	19	1.00#	5.3	1.51	14	June	12.6	66
25	O	Central Maine Power	18	1.20	6.7	1.31	D14	July	13.7	92
88	S	Central & S. W.	20	1.00	5.0	1.59	15	June	12.6	63
8	O	Central Vermont P. S.	14	.84	6.0	1.05**	D14	July	13.3	80
83	S	Cincinnati G. & E.	19	1.00#	5.3	1.49	4	June	12.8	67
5	O	Citizens Utilities	12	.40a	6.3a	.95	16	June	12.6	42
87	S	Cleveland Elec. Illum.	51	2.60	5.1	3.77	14	June	13.5	69
2	O	Colorado Cent. Power	20	1.12	5.6	1.39	18	June	14.4	81
34	S	Columbus & S. O. E.	24	1.40	5.8	2.25	22	June	10.7	62
304	S	Commonwealth Edison	35	1.80	5.1	2.31	10	June	15.2	78
8	A	Community Pub. Ser.	18	1.00#	5.6	1.54	22	June	11.7	65
1	O	Concord Electric	34	2.40	7.1	1.89	D25	Dec.	18.0	127
50	O	Connecticut L. & P.	16	.88†	5.5	.97	D1	July	16.5	91
17	O	Connecticut Power	38	2.25	5.9	2.41	1	June	15.8	93
435	S	Consol. Edison	39	2.40	6.2	2.97	24	June	13.1	81
91	S	Consol. Gas of Balt.	25	1.40	5.6	2.00**	20	June	12.5	70
137	S	Consumers Power	38	2.20	5.8	2.80	14	July	13.6	79

1952 Rev. (Mill.)		(Continued)	8/31/53 Price About	Rate	Current Yield	——Share Earnings*—— Cur. Period	% Increase	12 Mos. Ended	Price-Earns. Ratio	Dividend Payout
53	S	Dayton P. & L.	35	2.00	5.7	2.69	4	June	13.3	76
26	S	Delaware P. & L.	26	1.40	5.4	1.93	18	June	13.5	73
6	O	Derby G. & E.	23	1.40	6.1	1.52	5	Dec.	15.1	92
173	S	Detroit Edison	27	1.60	5.9	1.92	30	July	14.1	83
98	A	Duke Power	35	1.50	4.3	2.86	38	June	12.2	52
78	S	Duquesne Light	27	1.60	5.9	2.17	5	June	12.4	74
26	O	Eastern Utilities Assoc. ..	30	2.00	6.7	2.63	20	June	11.4	76
8	O	El Paso Electric	24	1.20	5.0	2.04	9	July	11.8	59
10	S	Empire Dist. Elec.	22	1.40	6.4	2.16	26	June	10.2	65
4	O	Fitchburg G. & E.	47	3.00	6.4	3.63	16	Dec.	12.9	83
28	S	Florida Power Corp.	25	1.50	6.0	1.93	54	June	13.0	78
61	S	Florida P. & L.	33	1.60	4.8	2.90	14	June	11.4	55
145	S	General Pub. Util.	24	1.60	6.7	2.32**	10	June	10.3	69
5	O	Green Mt. Power	22	1.30	5.9	1.80	D1	June	12.2	72
37	S	Gulf States Util.	23	1.20	5.2	1.60	27	July	14.4	75
19	A	Hartford E. L.	51	2.75	5.4	3.36	24	June	15.2	82
4	O	Haverhill Electric	38	2.50†	6.6	2.71	5	Dec.	14.0	92
48	S	Houston L. & P.	24	1.00	4.2	1.91	29	July	12.6	52
19	S	Idaho Power	42	2.00	4.8	3.17	28	June	13.2	63
55	S	Illinois Power	38	2.20	5.8	2.79	12	July	13.6	79
33	S	Indianapolis P. & L.	39	2.20	5.6	3.08	8	June	12.7	71
16	S	Interstate Power	10	.64	6.4	.92	19	June	10.9	70
18	O	Iowa Elec. L. & P.	19	1.20	6.3	1.84	23	June	10.3	65
26	S	Iowa-Ill. G. & E.	29	1.80	6.2	2.33	8	June	12.4	77
27	S	Iowa Power & Light	24	1.40	5.8	1.87	13	June	12.8	75
23	O	Iowa Pub. Service	23	1.40	6.1	1.72	6	July	13.4	81
10	O	Iowa Southern Util.	20	1.20	6.0	1.93	69	July	10.4	62
41	S	Kansas City P. & L.	28	1.60	5.7	2.32	19	July	12.1	69
19	O	Kansas Gas & Elec.	35	2.00	5.7	3.15	28	July	11.1	63
32	S	Kansas Pr. & Lt.	18	1.12	6.2	1.38	10	June	13.0	81
28	O	Kentucky Utilities	18	1.00	5.6	1.64	15	June	11.0	61
6	O	Lake Superior D. P.	31	2.00	6.5	2.70	3	June	11.5	74
6	O	Lawrence G. & E.	42	2.25†	5.4	2.38	D10	Dec.	17.6	95
59	S	Long Island Lighting	17	.90	5.3	1.24	8	June	13.7	73
36	S	Louisville G. & E.	39	1.80	4.6	3.21	20	June	12.1	56
6	O	Lowell Elec. Lt.	53	3.35†	6.3	3.63	D2	Dec.	14.6	92
8	O	Lynn G. & E.	28	1.60	5.7	1.88	21	Dec.	14.9	85
6	O	Madison G. & E.	33	1.60	4.8	2.71	10	Dec.	12.2	59
3	A	Maine Public Service ...	22	1.40	6.4	1.94	19	June	11.3	72
4	O	Michigan G. & E.	33	1.35#	7.1a	2.88	6	June	11.5	47
116	S	Middle South Util.	26	1.40	5.4	1.96**	3	July	13.3	71
18	S	Minnesota P. & L.	39	2.20	5.6	3.93	32	July	9.9	56
2	O	Miss. Valley P. S.	22	1.40	6.4	1.99	18	Apr.	11.1	70
2	O	Missouri Edison	14	.70	5.0	1.42	22	June	9.9	49
8	A	Missouri P. S.	24	1.20	5.0	2.09	34	Dec.	11.5	57
5	O	Missouri Utilities	18	1.00	5.6	1.63	12	June	11.0	61
31	S	Montana Power	28	1.60	5.7	2.80	9	July	10.0	57
15	A	Mountain States Pr.	16	.84	5.3	1.24	22	June	12.9	68
105	S	New England Elec.	13½	.90	6.7	1.25	D2	June	10.8	72
36	O	New England G. & E.	15	1.00	6.7	1.44**	25	July	10.4	69
39	O	New Orleans P. S.	41	2.25	5.5	2.84	9	June	14.4	79
2	O	Newport Electric	35	2.00	5.7	3.56	37	July	9.8	56
63	S	N. Y. State E. & G.	34	1.90	5.6	2.61	13	July	13.0	73
189	S	Niagara Mohawk Power .	26	1.60	6.2	1.92**	D7	June	13.5	83
59	O	Northern Ind. P. S.	27	1.60	5.9	2.40	11	July	11.3	67
100	S	Northern States Pr.	13	.70	5.4	1.08	23	June	12.0	65
8	O	Northwestern P. S.	13½	.90	6.7	1.41	13	June	9.6	64
101	S	Ohio Edison	37	2.20	5.9	2.97	20	July	12.5	74
32	S	Oklahoma G. & E.	25	1.50	6.0	1.95	17	July	12.8	77
13	O	Otter Tail Power	24	1.50	6.3	2.36	43	June	10.2	64
314	S	Pacific G. & E.	38	2.20	5.8	2.82	41	June	13.5	78
22	O	Pacific P. & L.	20	1.10	5.5	1.87	15	June	10.7	59
87	S	Penn. Power & Light	33	2.00	6.1	2.63	10	July	12.5	76

1952 Rev. (Mill.)		(Continued)	8/31/53 Price About	Div. Rate	Current Yield	Share Earnings* Cur. Period	% Increase	12 Mos. Ended	Price-Earns. Ratio	Dividend Payout
8	A	Penn. Water & Power	35	2.00	5.7	2.31	D9	Dec.	15.2	87
175	S	Philadelphia Elec.	30	1.60	5.3	2.30	6	June	13.0	70
29	O	Portland Gen. Elec.	30	1.80	6.0	2.42	1	June	12.4	74
48	S	Potomac Elec. Power ...	18	1.00	5.6	1.11	—	June	16.2	90
52	S	Pub. Serv. of Colo.	30	1.60	5.3	2.32	13	June	12.9	69
214	S	Pub. Serv. E. & G.	25	1.60	6.4	1.98	21	June	12.6	81
54	S	Pub. Serv. of Ind.	32	1.80	5.6	2.26	10	July	14.2	80
17	O	Public Serv. of N. H.	27	1.80	6.7	2.02	3	July	13.4	89
8	O	Public Serv. of N. M.	10	.56	5.6	.82	12	June	12.2	68
20	O	Puget Sound P. & L.	23	1.20	5.2	1.58	—	June	14.6	76
43	S	Rochester G. & E.	39	2.24	5.7	3.30	39	June	11.8	68
9	O	Rockland L. & P.	12	.60	5.0	.67	6	Mar.	17.9	90
7	S	St. Joseph L. & P.	19	1.20	6.3	1.61	15	June	11.8	75
33	O	San Diego G. & E.	14	.80	5.7	1.13	15	June	12.4	71
12	S	Scranton Electric	16	1.00	6.3	1.30	23	July	12.3	77
6	O	Sierra Pacific Pr.	28	1.60	5.7	2.94	69	June	9.5	54
127	S	So. Calif. Edison	35	2.00	5.7	2.82	NC	June	12.4	71
27	S	So. Carolina E. & G.	13	.70	5.4	.87	55	June	14.9	80
5	O	Southern Colo. Pr.	12	.70	5.8	1.04	21	May	11.5	67
164	S	Southern Company	14	.80	5.7	1.18	10	July	11.9	68
12	S	So. Indiana G. & E.	25	1.50	6.0	2.09	22	July	12.0	72
1	O	Southern Utah Power ...	13	1.00	7.7	1.67	46	Dec.	7.8	60
2	O	Southwestern E. S.	15	.96	6.4	1.40	7	May	10.7	69
27	O	Southwestern P. S.	20	1.20	6.0	1.56	22	June	12.8	77
15	A	Tampa Electric	46	2.80	6.1	3.59	23	July	12.8	78
94	S	Texas Utilities	42	2.08	5.0	3.22	18	July	13.0	65
33	S	Toledo Edison	12	.70	5.8	.92	1	June	13.0	76
8	O	Tucson G. E. L. & P.	34	1.60	4.7	2.75	36	June	12.4	58
91	S	Union Electric of Mo. ...	22	1.20	5.5	1.26	4	June	17.5	95
25	O	United Illuminating	43	2.40†	5.6	2.73	15	Dec.	15.8	88
2	O	Upper Peninsula Pr.	17	1.20	7.1	1.28	D7	June	13.3	94
26	S	Utah Power & Light	32	1.80	5.6	2.76	30	July	11.6	65
77	S	Virginia E. & P.	25	1.40	5.6	1.86	12	July	13.4	75
18	S	Washington Water Pr. ..	25	1.60	6.4	1.73	11	June	14.5	92
100	S	West Penn Elec.	34	2.20	6.5	3.21	13	June	10.6	69
56	O	West Penn Power	37	2.00	5.4	2.32	7	June	15.9	86
9	O	Western Lt. & Tel.	25	1.60	6.4	2.37	27	June	10.5	68
20	O	Western Mass. Cos.	34	2.00	5.9	2.77	40	July	12.3	72
79	S	Wisconsin Elec. Pr.	26	1.40	5.4	2.12	23	June	12.3	66
29	O	Wisconsin P. & L.	20	1.20	6.0	1.77	16	June	11.3	68
27	S	Wisconsin Pub. Ser.	18	1.10	6.1	1.56	24	June	11.5	71
		Averages			5.8%				12.7	73%
Foreign Companies††										
187	S	Amer. & For. Power	8	$ .60	7.5%	$2.24	15%	Mar.	3.6	27%
170	A	Brazilian Trac. L. & P. ..	10	1.00	10.0	2.96	20	Dec.	3.4	34
15	A	Gatineau Power	22	1.20	5.5	1.62	25	Dec.	13.6	74
26	O	Mexican L. & P.	4	—	—	.90	105	Dec.	4.4	—
8	A	Quebec Power	22	1.20	5.5	1.28	10	Dec.	17.2	94
40	A	Shawinigan Water & Pr. .	38	1.45†	3.8	1.91	4	Dec.	19.9	76
17	A	Winnipeg Electric	46	2.40	5.2	7.09	214	Dec.	6.5	34

B—Boston Exchange. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. NC—No comparable figures available. *If additional common shares have been recently offered, earnings are adjusted to give effect to the offering. Percentage change is in the balance available for common stock. Tax savings resulting from accelerated amortization of defense facilities are excluded (when separately reported). **Based on average number of shares. a—Also regular annual 3 per cent stock dividend, which is included in the yield. #—Also occasional stock dividends. †—Estimated (rate irregular or includes extras). ††—With exception of American & Foreign Power, these stocks are also listed in Canada, and the Canadian prices are here used. (Curb prices are affected by exchange rates, etc.)

What Others Think

Dondero Urges Freedom for TVA "Captive Cities"

THE continual uncertainty of adequate power supply in the Tennessee valley region is a problem of "increasing urgency," the solution to which ought to be given immediate and serious consideration by appropriate officials of municipalities and co-operatives purchasing power from the Tennessee Valley Authority. This is the view of Representative Dondero, Republican of Michigan, chairman of the House Public Works Committee, which deals with TVA matters.

Dondero made known his views on the subject in a letter addressed to 2,000 editors and publishers of newspapers in TVA's service area and its periphery, as well as to officials of municipalities and co-operatives within the area. "It is becoming clear that the cheap rates of the TVA, once considered a boon, may soon become an economic blight," Dondero said. "The very cheapness of that power, due to tax and interest avoidance, seems to have led to increasing obdurance by Federal legislators representing nonbeneficiary areas to pleas for additional funds for further 'free ride' generating capacity in (the TVA) area.

"Congress has rejected the theory," Dondero continued, "that the TVA, by administrative action, has created an obligation of the Federal government to supply funds forever and ever for all TVA power commitments in addition to water power."

This fact means that the TVA region is facing "poverty of power capacity" while enjoying extraordinary low rates, raising the question as to which is more important—"solid assurance of ample power for future needs, obtained at average cost, as against artificial and arbitrary low electric rates but with uncertain supply," the Michigan Congressman stated.

He reminded those concerned with this problem that assured adequacy of power for present and future needs is essential to payroll industries which will help to develop the region. Inasmuch as the cost of power ranges from one-half to 2 per cent of the total processing cost of most manufactured products in the TVA area, security of supply is often a more important element than cost, Dondero emphasized.

SPECIFICALLY, what is the problem? "The light metal industries which absorb a proportionately large amount of power in relation to their payrolls have naturally gravitated to the cheap cost area," Dondero pointed out. "Even as nonpreference customers they have preempted, by long-term contracts, a sizable proportion of TVA's power capacity otherwise available to municipalities and co-operatives under TVA's preference clause.

"Furthermore," he went on, "the board of TVA is empowered to sign away additional blocks of power otherwise available to TVA's preference customers for the benefit of these heavy users of electric energy. It has been said, with some justification, that the shortage of power in the TVA area has been created by its own board through injudicious, overoptimistic, and, perchance, intentional overselling of its firm and secondary power supply," Dondero stated.

In the light of these facts, the obvious recourse for TVA preference customers, co-operative or municipal, should be the construction, jointly or individually, of additional power-generating facilities of their own, and/or of the purchase of power from adjacent private generating

sources. But, as Dondero points out, the difficulty here is that TVA's customers "are foreclosed from such relief by administrative action of the board, taken under the broad powers delegated to it by an amendment in 1935 to § 10 of the TVA Act, permitting the TVA to specify 'terms and conditions' for the sale of its power. Under this authority," said Dondero, "the so-called 'sole supplier' clause has become standard in (TVA's) contracts with its preference customers."

This same amendment also accorded to the TVA the sole discretion as to rates under which power purchased from TVA may be resold to the ultimate consumer, Dondero noted, adding that even if the public agency customer of TVA should be relieved of the "sole supplier" clause, such control of resale rates could vitally affect the financial position of customers seeking to raise funds to construct their own power plants. "So weak and subservient have they become under TVA's economic pressure that they actually support a lobby in Washington for the purpose of further enshackling themselves," he declared.

Dondero revealed that in the last session of Congress an attempt was made by the so-called captive cities, through their lobby, the Tennessee Valley Public Power Association, to have restored to the budget the $30,000,000 initial steam-generating installation at Fulton, Tennessee, as provided in the Truman budget and as eliminated from the Eisenhower budget.

"Here developed the long-smouldering conflict between the beneficiaries of TVA's asserted and self-assumed 'public utility' theory and the rest of us in the United States who are expected to shoulder the obligation of endowing (the TVA region) with part-free electricity," Dondero stated. "Even had the TVA's customer lobby proved successful in this instance its victory necessarily would have been temporary. Political realism should point to the unlikelihood of continued appropriations for the benefit of a single region at the expense of the rest of the country," the Michigan Congressman declared.

He continued:

> Certain it is that dependence on Federal appropriations for further power requirements carries with it the liability to the region of remaining continually at the mercy of many nationwide economic and political factors having no relation to local power problems. Where a private company is controlled by a small group of officers empowered to plan and act in quick response to its business needs, TVA's customers remain subject to a "board of directors" consisting of the 531 members of Congress whose attention to TVA must be one of a multitude of other duties. Such a situation cannot prove healthy to the area no matter how great the subsidy its power supply may carry.

Dondero wondered if the people of the Tennessee valley region realize that they are generally considered to be beneficiaries of a domestic "Point Four" program. "It was indeed a sorry spectacle, damaging to the pride of the citizens of Tennessee, when the governor of that great state last spring broadsided officials throughout the nation, myself included, with tearfully mendicant letters appealing, almost on bended knee, for Federal money to build a new TVA steam plant," Dondero declared.

The Michigan Congressman proposes that the communities served by TVA "shall be relieved" from the shameful bondage of the sole supplier clause and resale rates control and that they be returned to their pristine sovereignty in domestic affairs."

To that end, Dondero introduced in the closing days of the first session of the 83rd Congress an amendment to § 10 of the TVA Act which not only would relieve the TVA's preference customers of TVA control over their resale rates but would also abrogate the sole supplier contracts.

How Dondero's proposal will fare in Congress remains to be seen. Experience

is showing day by day that the welfare state is much easier to construct than to take apart. Those who have for so long been beneficiaries of Federal aid are loathe to admit that such aid, if carried on indefinitely, may possibly work to their disadvantage. It is probably too much to expect that Congress, in an election year when the opposition intends to make the most of the "give-away" theme, will tackle such a politically explosive issue which for years has been confused in the public mind with propaganda claims and counterclaims. Nevertheless, a healthy debate on the issue could have beneficial results, particularly if it should in any way hasten the municipalities and co-operatives of the Tennessee valley to the realization that regaining their freedom over their own plants could well result in better conditions for the local treasuries, as well as a more assured and adequate power supply.

—F. M.

Public Power Group Assails Tax Certificate Award

THE announcement by the Office of Defense Mobilization last month that it had awarded a certificate of rapid tax amortization to a private utility, the Virginia Electric & Power Company, brought sharp criticism from the American Public Power Association. The APPA's charges were quickly taken up by a Washington, D. C., private consultant, Edward Flack (wartime director of the old WPB Office of War Utilities), who, in defending the tax certificate award, clarified some features of the government's tax certificate of necessity program—a program which, because of its complicated nature, often lends itself to gross public misrepresentation.

Alex Radin, APPA general manager, called the granting of a tax certificate to the Virginia Electric & Power Company for the company's Roanoke Rapids hydroelectric project "shocking." The certificate would permit the company "to write off, for tax purposes, 65 per cent of $33,095,000 worth of power facilities over a 5-year period instead of a period of fifty years or more normally followed in depreciation of such facilities," Radin said.

The purpose of the government's rapid tax amortization program is to give a financial incentive to companies to build projects or speed up the construction of facilities which are necessary to the defense effort. Radin's complaint in the case of the Virginia utility rests on the fact that Vepco applied for a license for the Roanoke Rapids project from the Federal Power Commission on October 6, 1948—"almost two years before the beginning of the Korean hostilities." A license for the project was recommended by the chief FPC examiner two months before the outbreak of the Korean war, on grounds that the company had shown there was need in the area for the power to be produced at the project. The company was issued a license in January, 1951, at which time, Radin states, "no mention was made in the commission decision as to the need of the company for tax assistance in order to finance the project." Indeed, the commission stated that the company had submitted satisfactory evidence of its ability to finance and carry to completion the project described in its application.

THE Roanoke Rapids project was bitterly opposed by former Secretary of Interior Chapman, who contested the matter before the United States Supreme Court. Chapman claimed the company's project would interfere with a Federal river basin program which had already started, and that Congress had by implication reserved the area for Federal development. This contention was rejected by the court, and the company went ahead with its construction program. The awarding of a tax certificate to the utility by ODM was, according to Radin, "a blatant . . . example of giving tax benefits for a project which was planned before Korea, and the need for which

was established on the basis of normal peacetime expansion."

Radin goes on in his statement to attack the entire rapid tax amortization program, citing a remark contained in a report by the Committee on Expenditures in the Executive Department, issued in May, 1952, that the program was "the biggest bonanza that ever came down the government pike." Radin pointed out that ODM, in a period of less than three years, has approved rapid tax write-off certificates for privately owned utilities for projects estimated to cost $3,954,-315,662, of which $1,774,924,183, or 44.8 per cent, has been certified for accelerated tax amortization. "A staff counsel of the Federal Power Commission has estimated that the privately owned utilities may receive benefits of almost $2 billion over a 30-year period as a result of the . . . program," Radin said. "In this connection it is interesting to note," Radin continued, "that over a period of more than forty years, during which the government has been building multipurpose projects including hydroelectric facilities, the total investment of the government in power facilities aggregates in the order of $3 billion—all of which will be paid in full to the Federal Treasury. Yet the private power lobby contends that public power is subsidized!" Radin concluded by calling for a congressional investigation of the accelerated tax amortization program.

THE implication in Radin's remarks is a familiar one: that the government is somehow giving away huge sums of money through its rapid tax write-off program and that this represents a "windfall" to private companies. In his comment on Radin, Edward Falck stated:

> The primary effect of rapid amortization is to reduce the amount of Federal income taxes payable during the first 5-year period and to increase the amount of taxes payable thereafter. Rapid amortization does not create a windfall but merely postpones Federal income taxes. The aggregate income tax payments are the same over the life of the property if the tax rate remains constant, whether the depreciation is taken in five years or spread over a longer period. Since the Defense Production Administration granted necessity certificates to electric companies located in different states all over the country, the state regulatory commissions in a very large number of states have established accounting rules providing for the setting up of a reserve for the payment of future Federal taxes. This has been done by the Virginia State Corporation Commission and also by the North Carolina Public Utilities Commission, both of which have jurisdiction over the accounting and rates of Virginia Electric & Power Company.

Falck called the criticism of the APPA "irresponsible" and said it could accomplish nothing "except to confuse the issue." The entire program has been handled carefully and conscientiously by the government officials concerned at both the Federal level and the state regulatory level, he concluded, and added: "It would be a shame if their co-operative efforts should be nullified by reckless propaganda."

IN a statement by Jack G. Holtzclaw, president of the Virginia Electric & Power Company, quoted in the Richmond press, the Virginia executive recalled that intervention by the Secretary of the Interior, who sought to block issuance of Vepco's license, resulted in more than four years of litigation, during which time the estimated cost of the dam rose approximately $7,000,000 above original costs. At the same time, he said, the delay forced the company to spend some $30,000,000 for two steam plants whose construction otherwise could have been postponed.

In a number of accelerated amortization certificates issued, Holtzclaw said, Vepco has received less than one-half of one per cent, while in total amount certified for rapid tax write-off, Vepco's share has been only one-third of one per cent of that granted industry as a whole.

As to expansion of generating capacity for defense needs, Holtzclaw emphasized that California is the only state in the nation that exceeds Virginia in the number of defense establishments, while Texas is the only state with an equal number of such installations. He said that a substantial part of Vepco's generating capacity is devoted to defense activities, which require a steady increasing supply of current.

"Tax amortization is not a gift or subsidy by the government," Holtzclaw emphasized. "It is not a Federal grant nor a loan. The act was designed to make it possible for industry to provide the necessary expanded facilities for the defense program with private capital, rather than have the Federal government put up the money. In obtaining the certificates which Vepco has secured, the company has simply conformed to the policy adopted by Congress and followed by other industries under like circumstances."

—F. M.

Westinghouse Head Seeks Policy Accord

A NATIONAL conference of public and private power groups to formulate a clear-cut, long-range national power policy was recommended by Gwilym A. Price, president of Westinghouse Electric Company, in a recent speech. Price told a St. Louis audience that the "time is ripe" for developing a new power concept. "For fifty years in this country, electric power has been a political football," he said. "Private industry and government too often have been found in opposition in the very field where there is most need for co-operation."

Price called for an end to this situation. "We need to place electric power once and for all above and outside of partisan politics. We need to lay down a clear-cut, coherent, long-range national policy of electric power. Lack of a national policy has slowed the advance of power in this couuntry," Price asserted. "It has encouraged waste of man power, materials, and capital; and it has caused neglect of power opportunities. We are a rich country, but we are not rich enough to waste our wealth, and we cannot afford to neglect any of our power resources," he said.

Lack of a national power policy is breeding uncertainty and indecision, Price declared—an uncertainty by no means limited to private industry but which exists in the Federal agencies that have a direct concern in the development of electric power in this country. "I sincerely believe that officials of the Department of Defense, the Department of Agriculture, the Department of the Interior, and the Federal Power Commission would welcome and benefit by a clearly defined national policy on power," Price stated. "So, too, would officials of those governmental segments outside the Federal level which are also vitally concerned in this issue; namely, the state public service commissions and the municipal power authorities."

PRICE did not indicate what he thought the national power policy should be. He suggested that the President "call all the interests substantially concerned with the generation, sale, and use of electric power to meet together in conference; and that they formulate, adopt, and proclaim a firmly set power policy as a guide for the rest of this century.

Although none of the conferring groups would be likely to get all it wants out of such a joint effort, Price said each would get one thing it now needs and wishes—the certainty of a charted, long-range policy.

"We would have more light and less heat," Price said. "The cities, states, Congress, the Federal agencies, and the private utilities would have a guide in the endless work of satisfying the national hunger for productive power."

The March of Events

In General

FPC Reaffirms St. Lawrence Ruling

THE Federal Power Commission on September 4th refused to reconsider its order granting the New York State Power Authority license to construct the American portion of a huge international hydroelectric project on the St. Lawrence river. FPC denied three petitions for rehearing of its July 15th order granting the New York agency authority to construct and operate the project in the International Rapids section near Massena, New York.

In a fourth action it denied the request by Public Power & Water Corporation, Trenton, New Jersey, for rehearing of an order, also issued July 15th, denying that company's competing application for a license to construct a hydro project in the same section of the St. Lawrence.

Representative Dondero (Republican, Michigan), appearing on a television program early this month, called proposed construction of Niagara Falls power facilities by New York state a "socialized venture" and criticized Governor Dewey for supporting the plan. Dondero rejected suggestions that either the Federal government or New York state construct and operate the proposed hydroelectric facilities. He is a sponsor of legislation to allow private industry to construct the facilities.

FPC Approves Rate Boost

THE Federal Power Commission recently approved higher natural gas rates for Algonquin Gas Transmission Company's newly approved New England operations.

The rate schedule calls for an average charge of about 52.6 cents for a thousand cubic feet of gas. Originally, the company had proposed an average rate of about 47.9 cents per thousand cubic feet and later raised the request.

FPC last month approved plans which permitted Algonquin, as well as Northeastern Gas Transmission Company, to sell to the New England market. Since then, Algonquin decided it would need a higher rate to make ends meet and submitted its revised schedule to the commission. The company said the increased rates would offset a proposed boost in gas prices by Texas Eastern Transmission Corporation, which supplies Algonquin.

In approving the rates, the commission told the company lower rates would not generate enough cash for Algonquin to meet first-year obligations.

Alabama

Rate Hike Effective

SOUTHERN NATURAL GAS COMPANY increased its rates 4 cents per thousand cubic feet, effective September 2nd.

C. Pratt Rather, Southern Natural president, said the new rate would affect gas sold to five retail gas distribution companies and approximately 50 municipalities and gas districts in Alabama, Georgia, and Mississippi.

The increase applies to gas sold for resale to domestic and other users not classified by the company as industries.

The new rates were filed with the FPC on March 2, 1953.

Mr. Rather said the increase was the first put into effect since the company's original system was built in 1930. Since 1930 there have been several decreases, he said.

Rather pointed out that 3½ cents of the 4-cent increase is the direct result of higher prices paid for gas and the remainder is the result of higher costs of labor, materials, maintenance, and taxes.

Delaware

Telephone Coin-box Rate Increased

THE Diamond State Telephone Company was recently granted approval by the Delaware Public Service Commission to raise the coin-box telephone rate to 10 cents a call and to make upward revisions of other rates to produce about 34 per cent of the extra income the company requested in its application for rate increases, filed last June.

The company was ordered to submit a new schedule of proposed rate increases to produce $439,000 in additional gross revenue. The 10 per cent coin-box rate is expected to bring the company approximately $78,000.

The company had asked for a schedule of rate increases it estimated would bring in $1,514,000 in additional gross income.

The commission based its order on its opinion that the fair value—or rate base—of the company's property in Delaware is $22,000,000.

Georgia

Natural Gas Rates Increased

THE state public service commission early this month approved, effective September 17th, a 6.3 per cent increase in Atlanta Gas Light Company rates for natural gas to its residential and commercial consumers in Atlanta and about 14 other Georgia towns and cities.

In approving the rate boost, which will add $1,379,500 a year to the company's revenues, the commission allowed the company to pass on to its customers an increase of 4 cents per thousand cubic feet in the wholesale price of gas.

The commission last spring allowed the company to pass on a similar increase to its industrial customers.

New Hampshire

New Rate Schedule Filed

A NEW rate schedule designed to increase revenues 6 per cent, or slightly more than $1,000,000, was filed with the state public utilities commission early this month by Public Service Company of New Hampshire. If allowed, the new rates would produce for the company approximately $500,000 in new earnings after Federal income taxes.

The new rates reflect an increase of approximately one cent a day for the domestic consumer and show an average increase of 6 per cent for each class of customers.

Oregon

Rate Agreement Reached

AGREEMENT between Westcoast Transmission Company and Portland Gas & Coke Company on a special interruptible rate for natural gas was disclosed recently by C. H. Gueffroy, president of the Oregon firm.

The new rate for sales in excess of contract demands, when gas is available,

would be 26 cents a thousand cubic feet, he said. An amended contract between the two companies, he stated, also provides a special development rate to attract new users.

The Portland executive said he assumed the special rates and other provisions contained in the modified contract would be available to other utilities contracting with Westcoast.

Westcoast Transmission recently boosted its estimate of Canadian natural gas reserves available for a pipeline it proposes to build to Oregon and Washington. The company, at an FPC hearing last month for authority to pipe natural gas to the Pacific Northwest, estimated reserves in the Peace river area of northern British Columbia and Alberta to be nearly 3¾ trillion cubic feet.

Pennsylvania

Increased Rates Authorized

THE state public utility commission recently approved a $2,185,000 annual rate increase asked by Peoples Natural Gas Company, Pittsburgh, and authorized the utility to put it into effect on October 15th.

The rate increase will cover a similar boost in the price of gas Peoples purchases from three wholesale gas suppliers. Texas Eastern Transmission Corporation boosted its annual rate to Peoples by $1,535,000 and Tennessee Gas Transmission and Hope Natural Gas made a combined $650,000 hike in the charges early this year.

The commission also gave final approval to a temporary $2,734,000 increase which it permitted the company to put into effect in June, 1952, pending completion of an inquiry into the rate boost.

The commission said that under the new rates Peoples will have a $4,120,000 annual net return on an estimated $75,000,000 value it put on the utility's plant.

The increase affects 220,000 of the company's consumers in western Pennsylvania counties.

Rate Raise Delayed

THE state public utility commission recently suspended for an additional three months to December 1st a $4,787,000 rate increase asked by the Duquesne Light Company of Pittsburgh. A 6-month suspension ended September 1st, but the commission said it needed more time to complete an investigation of the increase protested by the city of Pittsburgh.

Duquesne Light filed the rate boost to become effective last March 1st, but the commission delayed it for an inquiry and public hearings.

The boost, affecting 400,000 customers in Allegheny and Beaver counties, would give the utility virtually the same level of rate it sought in 1951.

Duquesne Light put in a $7,720,000 boost at the time, but the commission subsequently found it excessive by $3,400,000 and ordered refunds.

The refunds have been held up by city and company appeals still pending in the state superior court, but a lower scale of charges has been put into effect to reflect the commission-ordered reduction.

Demands Commission Probe

ANNE X. ALPERN recently challenged the state public utility commission to make its own investigation of the Pittsburgh transit service which she charged with being obsolete. The Pittsburgh city solicitor was talking about the Pittsburgh Railways Company.

She proposed the study in a brief filed as she appeared before the commission to fight the company's request for a 20-cent fare.

Miss Alpern urged the commission to deny the increase "until the very competent staff which the commission has at its command has made a thorough study of the company's transportation operations." She said the commission has a "duty to see that the public receives adequate services at fair rates. Yet the commission has never made a survey of the company's method of operation."

Progress of Regulation

Service Inadequacies Do Not Justify Confiscatory Rates

THE Michigan Circuit Court restrained the state commission from interfering with the General Telephone Company's collecting rates approximating those set forth in an application which the commission had allowed in part. The company requested an increase of slightly in excess of $1,000,000 and had been allowed about $660,000.

The company successfully showed to the court that the approved rates were unreasonable and confiscatory. The court, in allowing the company to make the higher rates effective, imposed the requirement that a reparation bond be posted and remanded the case to the commission for further consideration.

The impact and effect of the commission's inadequate rate relief were to cause the company to curtail its construction program because of the inability to raise sufficient capital. If such a condition were to continue, the court pointed out, not only the company, but also the public which it serves, would suffer.

A municipality which also appealed from the commission order contended that service was inadequate and that, therefore, it was not entitled to any relief. The company's answer was, first, that service was adequate and, second, that even if the city's contention were correct, it could not be compelled to operate under confiscatory rates. The commission in its rate order endorsed the municipality's view. The court ruled on this point in a separate opinion, a portion of which follows:

> Adequate and nonconfiscatory rates cannot be denied to a utility upon the theory that the value of existing service does not warrant an increase in rates. . . . The Michigan Public Service Commission is required by law to fix and determine adequate and nonconfiscatory rates and charges for a public utility which will produce a reasonable return upon the fair value of its property. . . . If existing service is found by the commission to be inadequate in certain instances, the commission cannot impose the penalty of confiscation for such inadequacies. This would be not only contrary to law but also, as the commission staff recognized, would prevent the company from ever attracting needed capital to make service improvements. Such action would have the effect of causing service to deteriorate rather than to improve, and would be against the interest of the public served by the company.

Strenuous objection was made by both the city and the commission to the court's making any change in rates. They contended that the most that the court could do was to require the commission to conduct another hearing.

The court said that the question presented was whether or not the company, being entitled to relief from confiscation, must suffer continuous daily confiscation waiting for future possible relief from the commission. The court answered the question in the negative. If the effect of the court action were to require the previous rates to go into effect, the company's situation, instead of being improved, would be worsened since it would lose the partial relief which the commission awarded it.

The general rule applicable to such a situation is that when rates established by a public utility are set aside, the company may set its own rates subject only to the ordinary requirements of reasonableness. Such a rate remains in force until modified by proper authority. *General Teleph. Co. v. Michigan Pub. Service Commission, Docket Nos. 34054, 34048, July 30, 1953; Ludington v. Michigan Pub. Service Commission, Docket Nos. 34048, 34054, July 30, 1953.*

Return Not Limited to Bare Cost of Money

A RATE of return of 6¼ per cent was held by the Federal Power Commission to be reasonable in fixing natural gas rates for United Fuel Gas Company. The commission gave extensive consideration to the company's outstanding securities, debt, and equity, nearly all of which is owned by the Columbia Gas System. The commission analyzed earnings-price ratios of United and of other natural gas companies and considered the ratio of dividends to earnings.

The commission was concerned with rates for the future. Interest charges had lately risen perceptibly; whether the securities markets would continue at their present levels was said to be a matter of uncertainty. The commission said:

> Without clairvoyance in the matter, it would be less than responsible for us to resolve against Columbia all doubts respecting the course of the money markets over the next eighteen months, during which period there is every indication that the system will be required to raise very substantial sums of additional capital for necessary expansion.

The commission recognized the principle stated in Bluefield Water Works & Improv. Co. *v.* Public Service Commission 262 US 679, PUR1923D 11, that the return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate under efficient and economical management to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. The commission then said:

> We have never held that our responsibility for determination of the fair rate of return can be discharged properly through the mere application of a strict cost-of-money formula to produce the minimum return which might be nonconfiscatory; rather we must exercise a fair and enlightened judgment having regard for all relevant facts. This has recently been emphasized in the opinion of the court of appeals for the eighth circuit, remanding to this commission for further findings the determination that 5½ per cent, in the circumstances of that case, constituted a fair rate of return for the Northern Natural Gas Company.

A return limited to the bare cost of money, the commission continued, will not encourage conservative financial practices, nor will it encourage adequate enlargement of service facilities. While a return equal only to the strict historical cost of capital might be legally defensible as nonconfiscatory, it seemed evident, in the circumstances of the case, that 6 per cent would exceed the cost of capital by so little, if at all, as to be less than reasonable.

As to the rate base, it was said that an average of the beginning and ending plant balances in the test period gave a reasonable approximation of the average continuous plant balance. A precise measure of plant used to produce a specific annual sales volume, said the commission, would be an average of the daily plant balances for the year. Such precision was said to be unnecessary in the ordinary case where additions are relatively small or evenly spaced, and hence the commission had frequently used average monthly balances to derive an approximation of the average continuous plant investment during a test period.

In the instant case it appeared that United Fuel made additions to plant uniformly throughout the year.

Reserves accrued for depreciation were called deficient but not so greatly deficient as to require the rejection of the book accrual and the use of an adjusted reserve. The staff's engineering witness thought depreciation rates currently used were inadequate. There was included in the cost of service an allowance for increased annual depreciation expense.

The company's claim for a Federal income tax allowance computed on the assumption that United Fuel filed a separate income tax return was rejected on the ground that consumers should be charged for only the actual liability for Federal income taxes. If by filing a consolidated return a reduction of this cost is effected, such reduction should be reflected in cost.

The segregation of total costs, namely, operation, maintenance, depreciation and depletion, taxes and returns by functional groups—production, LPG-Air, underground storage, transmission, and distribution—as recommended by the staff, was considered entirely feasible and an appropriate step in classifying and allocating costs.

The Federal commission made rulings on the classification of various cost items. *Re United Fuel Gas Co. Opinion No. 258, Docket Nos. G-1781, G-2055, August 7, 1953.*

Telephone Need Not Be Installed in New Location after Discontinuance for Gambling

A TELEPHONE company was justified in denying service to a cocktail lounge, the New Jersey board said, even though no specific request had been made by the police for a discontinuance of service at that location.

The two proprietors of a bar from which service had been removed, after the conviction of an employee for bookmaking, had moved to a new location and opened up a cocktail lounge. They contended that the police chief's request that the bar phone be removed did not extend to service to be provided for their new enterprise.

The board resolved the matter in the company's favor with this comment:

> The board now considers that where a law enforcement official notifies the telephone company to discontinue service of a particular telephone at a particular location because of an offense on a particular date that the necessary implication of that request is that the law enforcement official desires that no telephone service shall be given to the party in whose name that telephone was registered at any other subsequent time until that party receives a letter of no-objection from the law enforcement official or his superior that they have no objections to the restoration of service.

Masur (Torch Cocktail Lounge) v. New Jersey Bell Teleph. Co. Docket No. 7238, July 22, 1953.

Interruptible and Off-peak Gas Rates Not Based Solely On Incremental Cost of Service

THE supreme court of Illinois affirmed a commission order authorizing Peoples Gas Light & Coke Company to increase rates for interruptible and off-peak service. The price of competing fuels has risen considerably, and the court believed it only logical that these rates should also be increased. It was pointed out, however, that such rates should not be higher than the comparable cost of alternative fuels, since off-peak and interruptible customers must maintain stand-by equipment for conversion to other fuels.

The commission, in approving the revised rates, had not treated the sale of gas to interruptible and off-peak customers as a separate and segregated branch of the company's business. The court upheld this action. The demand created by the general customer originally made feasible the construction of facilities used to produce, gather, and transport gas to the area. Without the continued presence of the general customer market, the off-peak and interruptible customers would not be able to obtain gas at a price as low as either the superseded or revised rates. The interruptible and off-peak services were initiated only for the purpose of providing cheaper service to the general firm customers, by disposing of gas on hand over and above the current demand of the general customers.

The claim that the only basis for determining the reasonableness of the rates was the incremental cost of furnishing that service was rejected by the court. It held that the costs for a particular service must include not only the specific expenditures but also a just portion of the expenses incurred for all services of which that in question forms a part. Consequently, since each service must provide a fair share of the total return to the utility, incremental cost alone is not a sufficient basis.

Moreover, without the general customers' demand, the facilities might never have existed. Interruptible and off-peak customers participate in the benefits afforded by the availability of gas service.

They must bear, with the general customers, a reasonable share of the total cost of providing service. Consequently, the court held that the rate for interruptible and off-peak services must be something over incremental costs and an additional amount for the benefits of participating in the service of the company. *Produce Terminal Corp. et al. v. Illinois Commerce Commission ex rel. Peoples Gas Light & Coke Co. 112 NE2d 141.*

Subscriber-residents Must Pay Special Taxes Imposed by Municipalities

THE Utah Supreme Court has affirmed the decision of the Utah commission in *Re* Utah Power & Light Co. (1952) 95 PUR NS 390, that a power company should charge and bill its customers residing in a municipality, as a separate item, pro rata, for exactions of "any municipality wherein is imposed any municipal franchise, occupation, sales, or license tax" against the company. The court had approved a similar order in Utah Power & Light Co. *v.* Public Service Commission (1952) 97 PUR NS 373, 249 P2d 951.

The power company itself had not sought such an order but only a readjustment of rates. It had resisted the order since it had assured local authorities that it had no intention of billing local subscriber-residents for a pro rata share of the local imposition. The company's frank consistency and adherence to principle, said the court, were commendable, but its private understanding hardly could bind the commission. The matter of billing and charging subscriber-residents in the area where such impositions occurred, arose *sua sponte* with the commission at the rate hearing.

The basic question is whether customers in an area whose governing authority exacts taxes, fees, or other imposition against the utility, should pay the cost of operation represented by the local levies, or whether all customers of the company, statewise and pro rata, should shoulder that burden. The court decided that the order was within the regulatory authority of the commission and had the effect of rendering uniform the practices of the three regulable public service companies dispensing gas, telephone, and electric services.

When these impositions are spread over the bills of all customers, said the court, discrimination, in some degree, is inevitable. The company's president had asserted that in the past, because of lower

unit operational costs, densely populated areas (where local impositions generally prevailed) had benefited outlying areas having no impositions, since rates for like service were the same, statewide, irrespective of residence in or out of the local impositions area, which, in reverse, represented a discrimination against users in the areas where such impositions existed. The commission commented on this assertion:

> The argument is suggested that the local imposts tend to lessen or neutralize the discrimination against subscribers in nonimposition communities. But neutralizing one discrimination by creating another is no answer. Public policy seeks the elimination of as many discriminations as possible in a field where total elimination thereof is difficult or impossible of achievement. If the discrimination adverted to exists in fact, it is for the commission to help write its obituary, rather than to cancel its effectiveness by permitting the creation or persistence in being of another.

Ogden City v. Public Service Commission, No. 7907.

Company's Jeopardy Is Basis for Rule Permitting Telephone Discontinuance for Gambling

THE New Jersey board dismissed a former subscriber's complaint against a telephone company which refused to restore service previously discontinued at his place because of gambling activities.

The board reaffirmed the position which it had taken in a number of earlier cases that it was not unreasonable for a telephone company to discontinue service upon being informed of its use for an unlawful purpose. This rule is based on certain New Jersey statutes which provide that the company "may be indicted or lose its certificate of incorporation where it either aids, abets, and assists gambling or where it knowingly engages in the business of carrying or transmitting any message of a kind which will further or promote the interest of any unlawful pursuit."

An objection to the admission into evidence of a letter from the police chief requesting that the service be discontinued, on the ground that the letter was hearsay, was summarily disposed of. In the first place, the former subscriber's objection was tardy in that no protest was made at the hearing. Secondly, the subscriber had actually agreed to the letter being admitted. Finally, the admission of hearsay evidence, the board said, is not objectionable in an administrative hearing. *Conlon v. New Jersey Bell Teleph. Co. Docket No. 7447, July 29, 1953.*

Commission Lacks Authority to Require Municipal Plant to Enlarge Facilities beyond City Lines

THE Montana commission dismissed the complaint of persons living outside a municipality against the water service rendered them by the municipal utility. The city's defense was that the complaining parties were nonresidents and that the commission lacked authority to require the extension of facilities behind the city's corporate limits.

The commission decided the case on the pleadings, which in this case consisted of the complaint of the customers and the answer of the municipality. The contention by the city that a commission order directing expansion "would amount to forcing taxpayers to vote on a bond issue, and in favor thereof, by an administrative agency" placed the question squarely before the commission:

> Does it have the power to compel a public utility operated by a munici-

pality to provide sufficient quantities of water to residents outside the city limits when such provision would necessitate enlarging the mains outside the city at a great expense to the owners of the utility, the residents of the city?

The commission cited a number of earlier cases upholding the city's contention that the answer to this question had to be in the negative. The reasoning of the commission is apparent in these sentences from the opinion:

This commission is a creature of statute, spawned by the legislature, as is the city of Billings. The legislature saw fit to define the sphere activities of each, but it did not delegate to the commission in its police powers the right to dictate to the citizens of the municipality that they spend their money for the ultimate benefit of non-city taxpayers. The commission is sympathetic toward the residents of the improvement district who find themselves in such dire straits, and desires the record to reflect the same. However, it is keenly aware of the limits of its jurisdiction which do not include the power to enforce an order of the nature desired by complainants. The remedy is elsewhere.

Markegard v. Billings, Docket No. 4095, Order No. 2394, August 5, 1953.

Wholesale Gas Price Increases to Be Absorbed by Consumers Under Automatic Rate Adjustment Plan

FOUR gas companies serving the New York city area were authorized by the New York commission to pass on to their customers the wholesale price increase which the Federal Power Commission had authorized Transcontinental Gas Pipe Line Corporation to charge them. To require the companies to absorb the additional cost of gas would reduce their operating income below a reasonable level. Their return would be reduced to less than 5 per cent, and in one case to 3.50 per cent.

The companies were allowed to file amendments to their tariffs for the purpose of recouping such additional costs through the application of a rate adjustment factor to the gas consumption appearing on customers' bills. The commission concluded that the application of automatic purchased gas adjustment provisions should provide a practicable and equitable method of varying charges for gas service, upward or downward, in approximately the same proportion as changes in the cost of gas purchased for resale.

The commission, noting that such adjustment provisions might possibly militate against operating economies or the inauguration and carrying out of improved and more efficient procedures, advised the companies that the actual functioning of the purchased gas adjustment provisions would be subject to policing.

The commission will review the various necessary computations, as well as the actual operating results, in order that it may reopen the proceedings or institute new proceedings to eliminate objectionable features, to incorporate desirable modifications that might be deemed necessary in the future, or to cancel the automatic adjustment provisions if they should not accomplish the purposes and aims intended.

The wholesale rate authorized under bond by the Federal Power Commission was still subject to possible changes. The distributing companies were required to include in their tariffs special provisions for refunding in case the wholesale increase was eventually annulled. In the event of a retroactive reduction in the wholesale rates, the distributors are to decrease their rate to the level established by the Federal Power Commission plus successive monthly refunds for the retroactive period.

The distributing companies, however, were not required to pay interest on the

amount refunded to each customer since they would be burdened with the additional wholesale cost of gas until the purchased gas adjustment provisions would become effective. The interest credit received from the wholesale company could be used as a partial offset to such additional cost of purchased gas. *Re Brooklyn Borough Gas Co. Case 16189-16191, 16195, June 29, 1953.*

Higher Return Allowed Interstate Teletypewriter Service For Specialized Service

PROPOSED interstate teletypewriter (TWX) service rates that would yield a return of approximately 7 per cent were authorized by the Federal Communications Commission. Such a high return was allowed because TWX service is a specialized type of service, which is used by a relatively small segment of the general public, being used primarily by the business community as a valuable commercial function. The commission was quick to say that such a return was not to be considered a precedent for other rate-making proceedings and was not to be construed to indicate that such a level of earnings was proper for any of the other interstate communication services of the Bell system or for its over-all interstate operations.

The substitution of a fixed monthly charge for a guaranty-of-revenue charge for each TWX station also received commission approval. The protestants claimed that increasing the burden on all users by an additional fixed amount in proportion to the number of central office lines, irrespective of the amount of use made of each station, was manifestly inequitable and would result in unjust and discriminatory charges.

The commission, in rejecting the claim, said that such a fixed charge is not uncommon in public utility rate structures. Each customer causes certain expenses to the utility regardless of the amount of service he may use. If a customer has a utility installation and makes little or no use of it, he imposes certain expenses which he should bear and which should not be shifted to other customers. Under the fixed charge large users of the service are not burdened with the costs attributable to the smaller or convenience users.

The commission explained that there exists the requirement of additional interstate TWX revenues. Although such a requirement could be met by still larger increases for message rates than are proposed here, this would result in a still greater burden upon large users of service. The exaction of a portion of such additional revenue requirement by the imposition of a fixed monthly charge applicable equally to all stations, it was held, is an equitable means of distributing the relatively high costs involved in making service available to each customer and station. At the same time, it makes possible the maintenance of lower message rates and thereby encourages greater message use per station.

After discussing the administrative costs of the monthly revenue guaranty to the company and the cost of making service available to each customer, the commission computed the monthly cost of each station. Since the cost of each station exceeded $20 monthly, the $10 monthly charge for each station was not considered unreasonable. *Re Bell System TWX Rate Increases, FCC 53-578, July 1, 1953.*

Other Important Rulings

THE Wisconsin commission has jurisdiction to prescribe the accounting procedure to be followed by a transit company in recording the cost of property acquired from another transit company, and in recording the depreciation and amortization expenses applicable to such property. *Re Milwaukee & Subur-*

ban Transport Corp. 2-SB-510, May 19, 1953.

A temporary injunction against the enforcement of confiscatory rates prescribed by municipal ordinance may be obtained by a telephone company, said a Texas court, upon a showing (1) that there is reasonable probability of success on final hearing, (2) that the company's loss will be irreparable, and (3) that customers can be adequately protected by a refunding bond should the higher rates consequently be deemed unfair and unreasonable. *Baytown v. General Teleph. Co. of the Southwest, 256 SW2d 187.*

Authority to transport feed to farms in the general territory of line haul carriers, but without the right to serve points presently served by line haul carriers, was granted by the Colorado commission, notwithstanding the commission's policy to protect line haul service, where line haul carriers were unable to deliver directly to farms and ranches and the required transfer of the load when hauled by line haul carriers was demonstrated to be unsatisfactory. *Re Dunlap, Application Nos. 12361, 12362, Decision No. 40748, June 15, 1953.*

The need for competition in house moving transportation prompted the Colorado commission to grant a private carrier permit for such service, explaining that such service was a complex specialty for which no rates were prescribed. *Re Mayfield, Application No. 12272-PP, Decision No. 40822, July 3, 1953.*

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Re Florida Power Corporation

Docket No. 3719-EU, Order No. 1913
July 23, 1953

APPLICATION *by an electric company for authority to increase intrastate rates; granted.*

Rates, § 48 — Commission jurisdiction — Termination of local control.

1. The Florida Commission acquired exclusive and absolute jurisdiction over rates of an electric company in Pinellas county upon final termination of litigation involving rates fixed in that county by the Pinellas Utility Board, the rate jurisdiction of which had ceased upon enactment of a statute giving the Commission statewide jurisdiction, p. 132.

Rates, § 204 — Unit for rate making — Electric system.

2. The unit for rate-making purposes should be the entire interconnected operating property of an integrated electric company, without regard to geographical or political subdivisions, unless exceptional circumstances require or permit the segregation and fixing of a smaller unit, and whether such circumstances exist is a matter to be determined by the Commission in the exercise of its sound discretion, p. 133.

Valuation, § 25 — Year-end rate base — Expansion program.

3. A year-end rate base, rather than an average investment rate base, was adopted for an electric company engaged in an abnormal expansion program during a period of rapidly rising prices, although it was recognized that a rate base should be predicated on the net average investment for the test period where there is little fluctuation in a utility's investment accounts from the beginning of the year to the end of the year, p. 134.

Valuation, § 68 — Rate base determination — Plant acquisition adjustments.

4. An item representing essentially the difference between the amount of money actually paid for electric plant purchased and the original cost of such plant when it was first dedicated to the public service was excluded from the rate base, p. 134.

Valuation, § 288 — Rate base— Working capital.

5. Working capital is an element of value to be considered in arriving at a proper rate base, p. 135.

Valuation, § 290 — Working capital — Effect of tax accruals and customer advances.

6. Customer advances for construction, contributions in aid of construction, customer deposits, and Federal income tax accruals were deducted from the working capital allowance of an electric company, p. 135.

Return, § 22 — Reasonableness — Factors considered.

7. The more important factors entering into a determination of a fair return are the general economic conditions, the ability of the company to attract capital, the current cost of money, the financial history of

the company, the risk involved, comparisons with other enterprises of a similar nature, and efficiency of management, p. 136.

Return, § 26 — Cost of money — Effect of expansion program.

8. That the cost of capital had steadily increased during the past few months and interest rates were considerably higher than during past periods, when a return of 6 per cent was considered adequate for a public utility, were factors considered in determining the rate of return for an electric company engaged in a tremendous expansion program to be financed by the sale of large amounts of stocks and bonds, p. 136.

Return, § 87 — Electric company.

9. An electric company was held to be entitled to a return of 6.45 per cent on its year-end rate base in order to pay operating and maintenance expenses, taxes, depreciation expense, and debt service and to provide a fair and reasonable return for its common stockholders, p. 137.

Expenses, § 11 — Nonrecurring losses — Defect in fuel adjustment clause.

10. Losses sustained through the inequities of an electric company's fuel adjustment clause, which have been eliminated, should not be allowed as an operating expense for rate-making purposes, since, upon elimination of the inequities in the fuel adjustment clause, the losses have become a nonrecurring expense, p. 138.

Expenses, § 69 — Past maintenance losses.

11. Past losses resulting from the increased cost of maintenance and materials were not considered a proper expense for fixing future rates, p. 139.

Rates, § 171 — Uniformity — Electricity.

12. Uniform electric rates throughout an integrated system should be adopted in the absence of a strong showing that rate differentials are justified in the various territories served, p. 139.

Rates, § 50 — Commission jurisdiction — Contract rates.

13. The Commission has jurisdiction over a rate contract although entered into prior to the time jurisdiction over electric rates was given to it, and such contract rates may be changed by Commission order whenever justification exists, p. 139.

Rates, § 345 — Electric company — Industrial service.

14. An electric company's industrial rates should bear their fair share of increased costs of operation and should be adjusted upward where necessary to attain that end, giving due regard to any competitive situation that may exist because of the ability of other utilities to serve the company's industrial customers, p. 139.

APPEARANCES: K. E. Fenderson and S. E. Simmons, both of St. Petersburg, for the applicant; J. N. Helpbringer, St. Louis, Missouri, for City Products Corporation, protestant; F. E. Harrison, Tallahassee, for State Road Department, State Institutions and Tuberculosis Hospitals, as their respective interests may appear; B. H. Overton, St. Petersburg, for St. Petersburg Chamber of Commerce as its interest may appear; Edwin A. Whitnel, St. Petersburg, for Pinellas Utility Board as its interest may appear, and for himself personally, protestant; Lewis Petteway, General

Counsel for Florida Railroad and Public Utilities Commission; Fred Pettijohn, Director of Commission's Accounting Department, Fred Romig, Commission Accountant, and P. M. Schuchart, Director of Commission's Public Utility Department, all appearing on behalf of the Commission's staff and the public generally.

ORDER

By the COMMISSION:

I. *Nature of Proceeding*

This proceeding concerns an application filed in the above entitled matter by Florida Power Corporation on December 29, 1952, for authority to adjust its rates and charges now in effect for electric service furnished by the company in the state of Florida so as to establish and put into effect a uniform schedule of rates sufficient to yield a fair rate of return upon the value of the company's property devoted to the public use. The applicant further prays that the fuel and commodity clauses now in effect as part of its rate structure be confirmed with such modifications as may appear just and equitable; that the amount recorded in the company's books under Account 100.5 be approved as a prudent investment and together with Account 252 properly includible in the company's rate base and that appropriate adjustment of operating expense be provided for amortization thereof; and that the rates now applicable to customers in and about Madison, Monticello, and Perry, Florida and originally promulgated by Florida Power and Light Company, the former owner of the electric utility properties in said cities, be revised to conform to applicant's tariff of charges for its other consumers of like service throughout the company's system.

On January 12, 1953, the Commission issued an order providing for a public hearing on the reasonableness of applicant's various proposals. The first hearing was held in St. Petersburg, Florida, on February 10 and 11, 1953. The second hearing was likewise held in St. Petersburg on March 16 and 17, 1953, and the final hearing was held in Tallahassee, Florida, on April 27, 1953. Written briefs were filed and oral arguments were heard by the Commission on May 21, 1953. Prior notice of each hearing was given by newspaper advertisement in each county where applicant sells and distributes electrical power.

II. *Territory Served*

The applicant, Florida Power Corporation, is a Florida corporation with its principal place of business in St. Petersburg, Florida. It is an integrated public utility engaged in the business of generating, purchasing, transmitting, distributing, and selling electric energy and for that purpose owns and operates steam, internal combustion engine and hydraulic generating plants, substations, transmission lines and distribution systems. Except for a transmission line extending across and forty-eight miles beyond the Florida-Georgia state line and connecting with the transmission facilities of the Georgia Power Company near Barneyville, Georgia, the company operates wholly within the state of Florida and serves approximately 152,000 customers in an area of about 20,600 square miles with a population of approximately 700,000

people, including 96 incorporated cities and towns, and more than 150 unincorporated communities and extensive rural territory. The region encompassed by the company's operations commences at the Florida-Georgia state boundary line near Jasper, Florida, extends westward to the town of Chattahoochee in Gadsden county, southwesterly to Port St. Joe and vicinity, south along the Gulf Coast of Florida to St. Petersburg and through the central part of Florida to the Avon Park-Lake Placid vicinity embracing thirty-one counties, viz: Alachua, Bay, Citrus, Columbia, Dixie, Franklin, Gadsden, Gilchrist, Gulf, Lafayette, Lake, Leon, Levy, Madison, Marion, Orange, Osceola, Pasco, Pinellas, Polk, Seminole, Sumter, Suwannee, Taylor, Volusia, and Wakulla.

III. *Commission Jurisdiction*

[1] Under Chap 366, Florida Statutes, 1951, this Commission has exclusive jurisdiction over the rates and charges of public utilities as defined therein. Chapter 366, *supra,* became a law on May 9, 1951, and for almost one year thereafter some question existed concerning our jurisdiction over the rates charged by the applicant utility for services rendered to its customers in Pinellas county. At the time said chapter became a law there was in existence in Pinellas county a local regulatory agency created by Special Act of the Legislature with jurisdiction over the rates and charges of Florida Power Corporation in so far as its operations within Pinellas county were concerned. After its creation the Pinellas Utility Board determined that the rates charged by Florida Power Corporation within Pinellas county were unreasonably high and ordered a reduction in said rates. The utility attacked the validity of the Board's order in the circuit court of Pinellas county, and pending the completion of that litigation, was allowed to collect on an escrow agreement the higher rates which the Pinellas Utility Board had found to be unreasonable. The Circuit Court of Pinellas county sustained the rate order of the Pinellas Utility Board and Florida Power Corporation appealed from that decision to the supreme court of Florida. During the pendency of that litigation there was collected under the escrow agreement, aforesaid, from Pinellas county customers approximately one and one-quarter million dollars in excess of the rates found to be reasonable by the Pinellas Utility Board. While this matter was pending before the supreme court, Florida Power Corporation applied to this Commission for authority to increase its rates and charges in Pinellas county. In our Order No. 1757, dated January 31, 1952, 92 PUR NS 124, we expressed the opinion that the litigation which was pending between the utility and the Pinellas Utility Board constituted a serious impediment to a sound and successful financing program and handicapped the utility in bringing to present and prospective customers in Pinellas county, and elsewhere in its territory, the type of service which was being demanded and to which the public was entitled. We recognized that we had no authority to require Florida Power Corporation to dismiss its appeal in the supreme court, but we did strongly suggest that its obligation to the public required that it immedi-

ately terminate its litigation with Pinellas Utility Board and devote its efforts and abilities toward the completion of its expansion program so that service could be improved and new customers given the service to which they were entitled. Following our suggestions, Florida Power Corporation dismissed its appeal in the supreme court and refunded to its Pinellas customers approximately one and one-quarter million dollars. When Florida Power Corporation dismissed its appeal, all litigation concerning the rates established by the Pinellas Utility Board was thereby terminated and all rights, powers, duties, and jurisdiction of Pinellas Utility Board concerning rates and charges for electric energy in Pinellas county ceased to exist. Our own jurisdiction over said rates then became exclusive and absolute. Pinellas Utility Board has ceased to exist except for the purpose of winding up its affairs and is not a proper party either in support of or in opposition to proposed rate adjustments in the county where it formerly exercised regulatory powers. We have received and filed in this proceeding the voluminous records compiled by Pinellas Utility Board in its investigation of electric rates and charges in Pinellas county. However, we have given said records no consideration in the determination of this cause. Public utility operation in Florida is not in a static condition. Records of such operations compiled several years ago are now obsolete and completely valueless in a rate proceeding such as this. We have received these records and will preserve them for their historical interest and value, but we find them to be of no help in our present investigation of applicant's rates and charges.

IV. *Unit for Rate Making*

[2] In fixing the rate base and in determining the cost of service, we have considered all of the property and all of the operations of the company. We have treated as a single unit all the business of the company and have not segregated the property employed and the costs incurred in connection with the company's operations within local political subdivisions. Normally, the unit for rate-making purposes should be the entire interconnected operating property of the utility without regard to geographical or political subdivisions. Exceptional circumstances may require or permit the segregation and fixing of a smaller unit. Whether such exceptional circumstances exist is a matter to be determined by the administrative body in the exercise of its sound discretion. From a social and economic standpoint, the use of the entire property of the applicant seems sound. The company is an integrated public utility and electric energy generated by one of its powerhouses may be transmitted and delivered to any point within the whole system. An emergency shutdown or failure in one part of the system may be met by electric current generated elsewhere in the integrated system. A segregation under such circumstances would be purely artificial and, in part at least, arbitrary. In this case neither reason nor expediency imposes any obligation upon this Commission to treat local geographical or political subdivisions as separate units for rate-making purposes. The law

requires no such separation and the facts do not disclose any exceptional circumstances which would justify the use of arbitrary and artificial bases in this proceeding. The Pinellas Utility Board, in fixing the present electric rates in Pinellas county, was functioning under a special law which established Pinellas county as a separate unit for rate-making purposes. That special law, however, is no longer in effect but has been supplanted by a general law which provides for statewide regulation of electric public utilities. The failure of the Florida legislature to preserve Pinellas county as a separate unit for rate-making purposes when it adopted statewide regulation in place of local regulation leads inevitably to the conclusion that the legislature intended that this Commission should consider the entire property of a utility as the unit for rate-making purposes.

V. *The Rate Base*

[3, 4] Before rates can be fixed, we must first determine the rate base. In this phase of the rate-making process the legislature has charted a very clear and specific course for us to follow. The statute provides that we shall investigate and determine the actual legitimate costs of the property of each utility company, actually used and useful in the public service, and keep a current record of the net investment of each public utility company in such property which value shall be used for rate-making purposes and shall be the money honestly and prudently invested by the public utility company in such property used and useful in serving the public, less depreciation, and shall not include any good-will or going-concern value or franchise value in excess of the payment made therefor. Having established the theory upon which the rate base is to be predicated, as well as the component factors to be given consideration in such determination, it then becomes necessary to determine the date to be used to establish the rate base.

In normal times and under stable conditions the amount of revenue required to produce a fair rate of return can generally be calculated accurately and equitably upon the average and not the year-end balances of the test year. On the other hand, where a utility is in the throes of unusual growth and confronted at the same time with constantly increasing investment and operating costs, conventional notions of rate making must be adjusted to the circumstances and this is especially true where net earnings fail to keep pace with heavy additions made and to be made in plant investment. Where there is little fluctuation in a utility's investment accounts from the beginning of the year to the end of the year, we believe that the rate base should be predicated upon the net average investment for the test period. We have followed that method consistently for many years and will continue to do so whenever and wherever the investment accounts disclose nothing more than a normal growth. In the present case, a net average investment rate base for the test year 1952 would be $76,000,000 in round figures whereas the utility at the end of 1952 had more than $95,-000,000 invested in electric plant. If we use the average investment for the year 1952 in determining the rate base,

we would assume an investment level that is more than a year old. Such a rate base would bear no relationship to the actual conditions as they now exist. There seems to be only one sound objection to the use of the year-end rate base and that is that some additional revenues must be ascribed to plant additions; however, this would be largely offset by the factors of additional depreciation, taxes, and expenses, so that there is little, if any, danger of excessive compensation. Under present conditions, as disclosed by the record herein, we conclude that the year-end rate base is more realistic than the average investment rate base. Inasmuch as we are here fixing rates for the present and for a reasonable time in the future, we should not use an investment figure that is already more than a year old. During a period of rapidly rising prices and plant expansion, it is difficult, in proceedings of this nature, to determine an adequate and reasonable rate base. We must be fair to the public and exercise our rate-making power in such a way that the public is protected against exorbitant or unreasonably high rates. At the same time, the interest of the utility, and those who invest in its securities, must also be protected against noncompensatory rates. At best there is always a delay or regulatory lag of several months between the time a utility applies for a rate increase and the time a regulatory agency is able to make its final decision on the application. Even though the regulatory agency should determine that the utility was entitled to an increase in its rates at the time of the application, nevertheless, the rates could not be made retroactive and the utility would be deprived of the increased revenue during the months required to process the application. If such losses incurred through the regulatory lag are further augmented by the adoption of an average investment rate base which coincides with an investment level more than a year old, then the utility becomes the victim of confiscation: it cannot successfully sell its securities to raise the capital with which to finance its expansion program; customers are unable to secure adequate service; prospective customers are unable to secure any service; and the public suffers. In the present case we have adopted a year-end base constructed as shown on Appendix A, hereto attached and made a part of this order. [Appendix omitted.]

The applicant contended for a year-end rate base of $90,884,861 constructed as shown on Appendix B, hereto attached. [Appendix omitted.]

The principal difference in the company's rate base and the one we have adopted lies in the allowance for working capital and the treatment of electric plant acquisition adjustments. We have eliminated $1,197,865 which represents the electric plant acquisition adjustments as not being a proper item to be included in the rate base. This item represents essentially the difference between (1) the amount of money actually paid for electric plant purchased and (2) the original cost of such plant when it was first dedicated to the public service. The inclusion of this item in the rate base has not, in our opinion, been justified

VI. *Working Capital*

[5, 6] Working capital is an ele-

ment of value to be considered in arriving at a proper rate base. The various current accounts carried as working capital generally are intended to fulfill four principal functions; namely, to meet current bills, to provide a stock of materials and supplies, to have a sufficient cash reserve to meet emergencies, and to preserve the company's credit standing. It is the amount of cash necessary for the sale and convenient transaction of a business, having regard to the owner's ordinary outstanding accounts, both payable and receivable, the ordinary condition of the stock or supplies on hand, the natural risk of the business, and the condition of its credit. The allowance generally should be sufficient to furnish a public utility with funds to meet current operating bills when due, and provide for a stock of necessary materials and supplies to be used in the upkeep of the business. Because of the general functions to be fulfilled by working capital, it is customary to relate this item to operating expenses when determining the amount to be allowed in the rate base. In our computation of working capital we have allowed $1,572,696 for cash working capital, $728,787 for fuel, and $219,809 for prepayments, making a total of $2,521,292. However, we have offset against that amount certain sums which the company has at its disposal and which it may use in lieu of working capital, to-wit: Customers' advances for construction $54,-085, contributions in aid of construction $244,555, customers' deposits $774,583, and Federal income tax accrual for one-half of one-quarter in the sum of $395,050. The net amount then included in the rate base for working capital is the sum of $1,468,-273. Thus, we have arrived at a rate base of $85,910,409 against which the earnings of the company are to be tested for the constructed year.

VII. *Rate of Return*

[7, 8] The determination of a fair and reasonable rate of return is one of the most important and complex problems in a rate case. The more important factors entering into such a determination are the general economic conditions, the ability of the utility to attract capital, the current cost of money, the financial history of the utility, the risk involved, comparisons with other enterprises of a similar nature, and efficiency of management.

We will not give here a detailed discussion of our consideration of these and other factors entering into this phase of the case; however, it is common knowledge that during the past several months the cost of capital has steadily increased. Interest rates in the money markets of the county are considerably higher now than one or two years ago when a return of 6 per cent was considered by most regulatory agencies as sufficiently high for a public utility. At the present time a return of only 6 per cent would not appear to be fair and reasonable for a public utility which is engaged in a tremendous expansion program which must be financed by the issuance and sale of large amounts of bonds and stocks of the utility. In view of the current cost of capital and the condition of the money market today, concerning which there appears to be no immediate prospects for improvements, a rate of return of something in excess of 6 per cent, but less than 6½

per cent would, in our opinion, be reasonable for an electric public utility having a financial history and expansion program similar to the applicant.

Florida Power Corporation serves some of the fastest growing portions of the state. Florida is commonly recognized as one of the two or three fastest growing states in the entire country. Industrially Florida is developing at an amazing rate and most of this industrial development is taking place in territory served by the applicant in this proceeding. The applicant is engaged in an expansion program which requires the investment of some twenty to twenty-five million dollars, annually, in additional generating, transmission, and distribution facilities in order that the constantly increasing demands of the public for more and more electric energy can be adequately and efficiently met. Because of its past financial history which involves depressed earnings over a period of several years the applicant is at least one financing behind the schedule which was reasonably required to meet the increased public demand for electric energy in its territory. Present earnings of the company are not sufficiently high to support its expansion program. The utility must attract more capital if it is going to meet its obligation to the public and provide, within the territory professed to be served by it, adequate service for all those reasonably entitled thereto. If the utility is unable to meet these obligations, then the public cannot be served and the public interest and the public welfare suffer. While we would be the last to increase rates and charges which the public must pay for essential services, nevertheless, we will not contribute to the slowing down of the growth and industrial development of this great state by closing our eyes to the reasonable needs of those public utilities which are attempting to render essential services to the public. Such a policy would not only violate the constitutional rights of the utilities, but would constitute a great disservice to the public by depriving it of the service to which it is entitled.

Giving due and careful consideration to the many factors involved, it is our opinion that rates and charges which will yield a rate of return in excess of 6 per cent, but somewhat less than $6\frac{1}{2}$ per cent on the rate base hereinbefore approved will be fair and reasonable and, under present conditions and for a reasonable time in the future, sufficient to enable the company to serve its existing debt, attract the additional capital it needs to finance its expansion program, and provide reasonable earnings for the holders of its common stock.

VIII. *Additional Revenue Requirements*

[9] During the constructed year ended December 31, 1952, applicant received total gross operating revenues in the sum of $26,390,826. If this actual revenue were adjusted to show rates and charges in Pinellas county on the same level as the remainder of the system the total gross operating revenues would have been $27,544,313. This adjusted revenue figure should be further adjusted by deducting $5,000 to show the annual effect of revenue deductions caused by fixing the rates and charges in the Madison, Monticello, and Perry area

at the system level, and by deducting the sum of $60,000 to show the annual effect of revenue deductions caused by a new contract between the applicant and certain rural electric co-operatives. These revenue adjustments leave total gross operating revenues in the sum of $27,657,566.

Applicants operating and maintenance expenses for the constructed year ended December 31, 1952, were $14,857,217. We have adjusted these by adding thereto the sum of $235,000 to show the annual effect of wage increases granted in July, 1952. Depreciation expenses for the constructed year were $2,143,278. Taxes other than Federal income were $1,154,035 but we have adjusted these by adding thereto the sum of $132,674 to show the annual effect of an increase in ad valorem taxes, increased workmen's compensation insurance and additional taxes under the state's public utility gross receipts tax, making total taxes (other than Federal income) in the sum of $1,286,709.

In our opinion, applicant will require a rate of return of 6.45 per cent on our rate base of $85,910,409 in order to pay its operating and maintenance expenses, taxes, depreciation expenses, debt service, and provided a fair and reasonable return for its common stockholders.

After giving full consideration to the adjusted revenues and adjusted expenses for the constructed year, we have calculated that a return of 6.45 per cent on the rate base of $85,910,409 would require Federal income tax allowance in the sum of $3,594,141. When this allowance for Federal income tax is added to the adjusted expenses aforesaid and the result deducted from the adjusted gross revenues of $27,657,556, the remainder will be the applicant's net operating income in the sum of $5,541,221 which represents a return of 6.45 per cent on the rate base we have found as the reasonable value of applicant's property devoted to the public service. It is our opinion that this net operating income in the sum of $5,541,221 which represents a rate of return of 6.45 per cent on the rate base of $85,910,409, will be sufficient to enable applicant to properly maintain its property, to attract the additional capital it requires to continue its expansion program, and to render an adequate and efficient service to the public.

In order to receive a return of 6.45 per cent on said rate base, it will be necessary for applicant utility to adjust its rates and charges so as to produce gross operating revenues in the sum of $27,657,566 on the basis of its 1952 operations.

[**10**] Applicant has contended for two further adjustments in its operating expenses. First, it contends that the annual effect of losses sustained through the inequities of its fuel adjustment clause was $275,000 for the constructed year ended December 31, 1952. The automatic fuel adjustment clause then in effect was voluntarily adopted by the utility and, while it did nothing more than recover for the utility the actual increases in the price of fuel from time to time, it failed to recover the cost of the fuel when the price thereof declined. For that reason the company has proposed a revised fuel clause which will protect the company against the fluctuations in the cost of oil. The $275,000 loss sustained in 1952 then becomes a non-

recurring loss which should not be taken into consideration in fixing rates for the future.

[11] The applicant also contended that it suffered a $25,000 loss through the increased cost of maintenance and materials. We do not consider that this is a proper item to be considered in fixing rates for the future.

IX. *Uniform Rates*

[12] While the construction of rates so as to produce the revenues approved by the regulatory agency is a matter initially for management and this Commission should refrain from fixing the exact type of rate unless discrimination exists, nevertheless, we are of the opinion that uniform rates throughout an integrated system are desirable and should be adopted in the absence of a strong showing that rate differentials are justified in the various territories served. Much of what we have previously said in this order regarding the proper unit for rate making is equally applicable to the question of uniform rates. The difficulties attendant upon making approximately accurate allocations and fixing fair or satisfactory zone or other rate differentials should not be undertaken unless there are such differences in circumstances and conditions between different parts of the territory served by an integrated electric utility as to justify a departure from uniformity. We find nothing in this record upon which we could base the separations and allocations which would be necessary if rate differentials are to be established for different territories. Giving consideration to all of the facts disclosed by this record, we are of the opinion that the applicant should put into effect a uniform scale of rates and charges for similar service throughout its entire system.

X. *Industrial Rates*

[13, 14] Industrial rates maintained by the applicant have been the result of private contract between the utility and the industrial users of electric energy furnished by the applicant. These contracts were entered into prior to the time jurisdiction over electric rates was given to this Commission. While said contract rates were, and still are, valid they are subject to our jurisdiction and control and may be changed by order of the Commission wherever justification therefor exists. The record here discloses that increased operating costs have not been reflected in these industrial rates. We recognize, of course, that large industrial users of electric energy make possible for an electric utility to expand its facilities so that domestic and other customers of the utility may have more efficient and economical service. However, industrial rates should bear their fair share of increased costs. Some, if not all, increases in operating costs are related to the generation, transmission, and distribution of electric energy for industrial use. It is our opinion that the record herein discloses conditions and circumstances that require some portion of the increases herein authorized to be reflected in an upward adjustment of the applicant's existing industrial rates.

In adjusting its industrial rates upward, however, the utility should bear in mind the fact that some of its industrial customers are located in territory

that might readily be served by other electric utilities. An industrial customer desiring to change from one utility to another in order to take advantage of a better contract industrial rate would, of course, be confronted with the necessity of having the new contract rate approved by this Commission. It is not likely that we would, in the absence of judicial coercion, require one utility to increase its industrial rates and then approve lower industrial rates for a competitive utility. Applicant, however, should bear in mind this potential competitive situation in adjusting its industrial rates upward as directed herein.

XI. *Findings of Law and Fact*

Based upon the entire record herein, the Commission finds that:

(1) The Florida Railroad and Public Utilities Commission has absolute and exclusive jurisdiction over the rates and service of Florida Power Corporation throughout its entire system.

(2) The entire property of Florida Power Corporation should be considered as a single unit for rate-making purposes without segregation as to geographical or political subdivisions.

(3) The 1952 year-end rate base of $85,910,904, as previously discussed herein, and as shown on Appendix A, hereto attached [appendix omitted] and made a part of this order, represents the fair and reasonable value of Florida Power Corporation's property used and useful in serving the public and upon which it is entitled to earn a fair and reasonable return.

(4) A return of 6.45 per cent per annum on the utility's year-end rate base of $85,910,904 will be fair, reasonable, and compensatory and should be sufficient for the present and for a reasonable time in the future to enable applicant to successfully finance the continuation of its expansion program.

(5) Total gross operating revenue in the sum of $27,657,566, based upon applicant's 1952 operations, will be required to give the utility a net operating income of $5,541,221, or a return of 6.45 per cent on said rate base of $85,910,904.

(6) Applicant should put into effect throughout its entire system a uniform scale of rates and charges for similar service eliminating any discriminations or inequities that may exist in its presently effective rates and charges.

(7) Applicant's industrial rates should bear their fair share of the increased costs of operations and should be adjusted upward to attain that end giving due regard to any competitive situation that may exist because of the ability of other utilities to serve applicant's industrial customers.

(8) Applicant should prepare and file with this Commission for its consideration and approval a schedule of rates and charges which, together with such fuel and commodity adjustment clauses as applicant may propose and which may be approved by this Commission, will produce, on the basis of applicant's 1952 operations, total gross operating revenue in the sum of $27,657,566, said schedule and adjustment clauses, if approved, to become effective as to all bills rendered by applicant on and after August 1, 1953.

(9) Jurisdiction over the subject matter of this proceeding and the parties herein should be retained by the

Commission for a period of thirty days from the date hereof for the purpose of entering such other and further order or orders as may be necessary or appropriate in the premises.

XII. *Order*

Now, therefore, in consideration thereof, it is *ordered, adjudged* and *decreed* by the Florida Railroad and Public Utilities Commission as follows:

(1) The findings of law and fact as hereinbefore set forth, together with the discussion of the various elements and factors involved as contained in the body of this order, be and the same are hereby approved in every respect.

(2) Florida Power Corporation shall forthwith prepare and file with this Commission for its consideration and approval such schedule of rates and charges, and fuel and commodity adjustment clauses, as may be necessary and appropriate to produce the gross operating revenues herein found to be necessary and reasonable.

UNITED STATES COURT OF APPEALS, THIRD CIRCUIT

Alabama-Tennessee Natural Gas Company

v.

Federal Power Commission

Nos. 10766, 10791
203 F2d 494
April 1, 1953; rehearing denied April 21, 1953

REVIEW *of orders of Federal Power Commission relating to tariffs filed by natural gas pipeline company; orders affirmed.*

Rates, § 236 — Schedules — Increase under Natural Gas Act — Trial rates.

1. A natural gas company which was granted authority to extend its system, subject to filing a satisfactory tariff with the Federal Power Commission, and which agreed to an interim rate to afford an experimental basis for the postponed determination of a just and reasonable rate satisfactory to the Commission is not entitled to treat the interim rate as the kind of rate which is subject to change by notice under § 4(d) of the Natural Gas Act, 15 USCA § 717c(d), since only after an initial determination of a satisfactory rate, in compliance with the Commission order relating to the interim rate, could the company properly claim that it was operating under the kind of tariff that is subject to change by § 4(d) procedure, p. 144.

Appeal and review, § 28.1 — Finding by Federal Power Commission — Omission of intermediate decision.

2. A court should sustain an order of the Federal Power Commission dispensing with the intermediate recommendation of the hearing officer, pur-

suant to § 8(a) of the Administrative Procedure Act, 5 USCA § 1007(a), when from an examination of the record the court cannot say that the Commission finding as to the necessity for such omission was arbitrary, p. 145.

Valuation, § 290 — Working capital — Factors reducing need.

3. The Federal Power Commission in determining the need for working capital may quite reasonably and properly take into account factors which reduce the need as well as those which increase it, p. 145.

Valuation, § 299.1 — Working capital — Tax adjustment — Past practice of Commission.

4. The past practice of the Commission as to allowances for working capital without adjustment for accrued Federal income taxes is not decisive on the question whether such adjustment should be made, p. 145.

Valuation, § 299.1 — Working capital — Income tax accruals.

5. The action of the Federal Power Commission in reducing the otherwise allowable working capital figure by deducting certain accruals for payment of Federal income taxes was not erroneous, p. 145.

Apportionment, § 31 — Costs of natural gas company — Volumetric basis.

6. An allocation of total costs of a natural gas company between jurisdictional customers and nonjurisdictional customers on a volumetric basis, instead of dividing only operating costs on a volumetric basis and allocating fixed costs on the basis of peak day requirements, was not erroneous in the case of a natural gas company in a developmental stage when peak day demands recorded during a test period fell far short of absorbing the full capacity of the system and thus did not have the significance that they would have in the normal case p. 147.

Appeal and review, § 28.1 — Cost allocation by Federal Power Commission.

7. The appropriateness of an allocation formula employed by the Federal Power Commission in a given case raises questions of fact, not of law, and when the usual method of allocation of fixed costs of a natural gas company would lack normal significance and reasonable men might differ in judgment as to a choice of formulae, the choice made by the Commission cannot be reversible error, p. 148.

APPEARANCES: Stanley M. Morley, Washington, D. C. (Robert E. May, Charles V. Shannon, and Wheat, May & Shannon, Washington, D. C., David I. Day, Jr., and Marshall, Batman & Day, Terre Haute, Ind., on the brief), for Alabama-Tennessee Natural Gas Co.; Reuben Goldberg, Washington, D. C. (Bradford Ross, General Counsel, Bernard A. Foster, Jr., Assistant General Counsel, Sherman S. Poland, Albert J. Feigen, Washington, D. C., on the brief), for Federal Power Commission.

Before Goodrich, Staley, and Hastie, CJJ.

HASTIE, CJ: This is the relevant history of the administrative action of the Federal Power Commission which we are asked to review in these cases. The starting point is an order of July 2, 1948, 7 FPC 257, by which the Commission granted Alabama-Tennessee Natural Gas Company, hereinafter designated as the petitioner or the company, a certificate of public convenience and necessity under § 7(c) of the

Natural Gas Act, 56 Stat 84 (1942) 15 USCA § 717f(c), authorizing it to build and operate certain extensions of a natural gas pipeline system on condition that a tariff satisfactory to the Commission be submitted six months before the beginning of the new operation.

On December 16, 1949, petitioner filed a tariff which it proposed to become effective about March 1, 1950, on the beginning of its deliveries and to continue fourteen months thereafter. Objections were filed by certain communities which would be served by the new line. By order of February 10, 1950, the Commission rejected the proposed tariff saying that it did "not constitute satisfactory compliance" with the condition of the certificate and further directing that the certification proceedings "be reopened, and further public hearings held with respect to the matters involved in and necessary to the determination of a tariff satisfactory to the Commission." Hearings followed during the course of which conflicting evidence was received and various controversial contentions were advanced.

This reopening of the certification proceeding resulted in an order of June 16, 1950, wherein the Commission decided, in the light of serious and unresolved conflicts in the evidence and interpretation thereof, that it should and would postpone "determination of what constitutes a satisfactory tariff until such time as the uncertainty resulting from the conflicting estimates can be dispelled by data derived from operating and construction experience." To provide such experience the order further authorized the petitioner to begin and for fourteen months to continue operations under the tariff which had been proposed December 16, 1949 and rejected February 10, 1950. However, the order expressly provided that "Nothing contained in this order shall be construed as constituting approval of the Commission of any service, rate, charge . . . provided for in the above-described interim tariff . . . ." Finally, this order also provided that thirty days prior to the expiration of the 14-month period of operation under the interim tariff the petitioner "shall submit a tariff . . . satisfactory to the Commission, together with cost studies and other data in support thereof." All of this was in accordance with the company's original December 16, 1949, submission, for that filing suggested that an interim tariff be permitted "in accordance with the Commission's decision in Re Texas Eastern Transmission Corp., entered in Docket No. G-1089 on December 9, 1949 (8 FPC 1356)," and the restrictive provisions of the June order are like those of the order in the Texas Eastern Case.

In November, 1950, the company began operations under this June 16, 1950, order. Thirteen months later, at the end of November, 1951, it proposed that the interim tariff now be accepted on an unrestricted basis as a satisfactory tariff. The Commission rejected this proposal and ordered further hearings to determine a satisfactory tariff, meanwhile continuing the interim tariff, first until January 31, 1952, and later until April 30, 1952, pending that determination. The hearings thus ordered began January 14, 1952. The same day the company filed a schedule of increased rates which it proposed to make effective February

13, 1952, as a change in its tariff to meet certain increased costs. On February 1, 1952, the Commission entered an order rejecting this proposal as presenting issues comprehended by and properly to be decided in the hearings then in progress. This order is one of the matters now before us for review.

During the course of these hearings which began January 14, 1952, the Commission entertained a motion by counsel for its staff that the procedure of intermediate report and recommendation by the hearing officer be omitted in this case. Over petitioner's objection the Commission granted this motion by order issued February 25, 1952. That order is also here for review.

Finally, after completing the hearings, the Commission on May 1, 1952, issued an order, 94 PUR NS 426, 441, deciding that neither the interim tariff nor the rate proposal of January 14, 1952, was satisfactory. Instead the Commission found that a tariff incorporating a "uniform straight rate of 31½ cents per thousand cubic feet" was "just, reasonable, . . . and satisfactory to the Commission in accordance with the rate condition . . . issued to Alabama-Tennessee Natural Gas Company by order issued July 2, 1948, *supra*." This is the third order which we have before us for review.

[1] We first consider the order issued February 1, 1952, rejecting the filing by which petitioner attempted to accomplish a rate increase under the procedure set out in § 4(d) of the Natural Gas Act, 52 Stat 823 (1938) 15 USCA § 717c(d). Petitioner does not deny that the territorial extension of its services and operations out of which this controversy arises required a certificate of public convenience and necessity under § 7(c) of the act. It does not deny that the rate condition originally incorporated in its certificate was within those "reasonable terms and conditions" which § 7(e) says the Commission may "attach to the issuance of the certificate." 56 Stat 84 (1942) 15 USCA § 717f(e). Nor does it challenge the order of June 16, 1950. And that order, entered after hearings in the reopened certification proceeding, determined, as we already have summarized it, what should be done to arrive at such a satisfactory tariff as was a condition of the certificate itself. Indeed, petitioner could not very well challenge this order since its own December submission had suggested just such a procedure as the Commission sanctioned six months later, including the allowance of an interim rate to afford experiential basis for the postponed determination of a just and reasonable rate satisfactory to the Commission. In its brief, petitioner goes so far as to say that "respondent's extended discussion of the power of the Commission to attach rate conditions to the certificates which it issues is an effort to obfuscate the real issues in this case." Accordingly, abjuring obfuscation, we treat this as a case where analysis has its agreed and proper starting point in the existence of a valid rate condition in the original certificate and a valid supplementary and modifying order of June 16, 1950, providing for a temporary modus operandi.

Thus, our only problem is whether in addition to the company's right and duty under the June 16, 1950, order to work out and put into effect, as yet for the first time, a satisfactory rate, it

also had the privilege, in the midst of this duly prescribed preliminary procedure, to invoke the mechanics of § 4(d) to accomplish an increase in the charges which the Commission had permitted it to make during the interim period. To treat the "interim rate" permitted under the June 16, 1950, order as the kind of rate which is subject to change on the free initiative of the company under § 4(d) is to ignore the restrictive context in which it was allowed to become effective. For it is our premise that the Commission had power to impose the rate condition and it is clear that the June 16, 1950, order was in substance a relaxing modification of that condition in accordance with petitioner's own request. This conjunction of administrative power and the suitor's consent in our judgment effectively fixed the temporary pattern and terms of the operation during a preliminary period while a just and reasonable rate was being determined. Only after such an initial determination of a satisfactory rate in compliance with the June 16, 1950, order, could the company properly claim that it was operating under the kind of tariff that is subject to change by § 4(d) procedure.

[2] Petitioner next complains that the order issued February 25, 1952, dispensing with the intermediate recommendation of the hearing officer was arbitrary and a violation of the Administrative Procedure Act. Section 8(a) of that act, 5 USCA § 1007(a), permits omission of the intermediate decision procedure in this type of case if "the agency finds upon the record that due and timely execution of its functions imperatively and unavoidably so requires."[1] The Commission made such a finding of necessity. We have examined the record and cannot say that the finding was arbitrary. Accordingly, we sustain it. Compare Kenny v. United States (DC NJ 1952) 103 F Supp 971. In this connection we have noted that at the company's request the June 16, 1950, decision was made without preliminary recommendation of the examiner though there had been extended hearings before him on essentially the same issues as were again before an examiner. We have not been able to discover such difference between the two situations that what was reasonable when the company requested it in 1950 became arbitrary when the company opposed it in 1952.

[3-5] This brings us to the merits of the rate-fixing order issued May 1, 1952, 94 PUR NS 426. The petitioner contends that reversible error appears in the Commission's determination of the rate base. First, it is complained that the Commission erroneously reduced the otherwise allowable working capital figure by deducting certain accruals for payment of Federal income taxes. There is no dispute as to the propriety of including a working capital item in the rate base, nor as to what that figure should be, except in so far as the total otherwise

[1] "Whenever the agency makes the initial decision without having presided at the reception of the evidence, . . . [the hearing] officers shall first recommend a decision except that in rule making or determining applications for initial licenses (1) in lieu thereof the agency may issue a tentative decision or any of its responsible officers may recommend a decision or (2) any such procedure may be omitted in any case in which the agency finds upon the record that due and timely execution of its functions imperatively and unavoidably so requires." 60 Stat 242, 5 USCA § 1007(a).

arrived at may be affected by consideration of tax accruals.

Federal income tax is included as an item of expense in the computation of the rates which the company will be permitted to charge during the taxable year. But under § 56 of the Internal Revenue Code, the company need not pay its tax until the year following that in which the liability is incurred.[2] Therefore, in so far as customer billings are attributable to the company's income tax liability, current payments are being received in advance of the time when the company must pay corresponding obligations. It follows that there is in the hands of the company at all times a sum which reduces the amount which must otherwise be provided and left in the business in order to enable it to maintain a position liquid enough to meet current obligations. Should this situation be taken into account in determining the amount of working capital to be included in the total capital investment on which petitioner will be allowed a fair return?

"Working capital," in the context of public utility rate regulation, has been defined as the "allowance for the sum which the company *needs to supply from its own funds* for the purpose of enabling it to meet its current obligations as they arise and to operate economically and efficiently." Barnes, The Economics of Public Utility Regulation (1942) 495. Since it is normally contemplated that all operating expenses will eventually be paid for out of revenues received by the company, the need for working capital arises largely from the time lag between payment by the company of its expenses and receipt by the company of payments for service in respect of which the expenses were incurred. See Pittsburgh v. Public Utility Commission (1952) 370 Pa 305, 309–312, 94 PUR NS 353, 88 A2d 59, 61-63. But there are time lags which work in favor of the company as well as those which work against it. The company no more pays immediately every liability accrued than do its customers. In determining the need for working capital, the Commission may quite reasonably and properly take into account factors which reduce the need as well as those which increase it.

Petitioner urges that this is the first case in which the Commission has thus considered accumulations of cash which must ultimately be used to pay Federal income taxes in computing working capital.[3] However that may be and for whatever reason, we do not

[2] Under this section, 26 USCA § 56, payments may be made as follows:

For tax year ending Dec. 31 of the year	Per cent of tax due on dates in following year Mar.	June	Sept.	Dec.
	15	15	15	15
1950	30	30	20	20
1951	35	35	15	15
1952	40	40	10	10
1953	45	45	5	5
1954 and thereafter ..	50	50		

[3] It is to be noted that in cases decided after the instant one the Commission has followed the method of computation adopted here. See Transcontinental Gas Pipe Line Corp. (1952) Opinion No. 227, 94 PUR NS 333; Re Northern Nat. Gas Co. (1952) Opinion No. 228, 95 PUR NS 289; Re Northern Nat. Gas Co. Opinion No. 228-A, Sept. 26, 1952; Re Colorado Interstate Gas Co. (1952) Opinion No. 235, 95 PUR NS 97; Re Colorado Interstate Gas Co. Opinion No. 235-A, Sept. 29, 1952; Re Mississippi River Fuel Corp. (1952) Opinion No. 234, 95 PUR NS 435. Although the Commission had not used a precise figure representing tax accruals in computing working capital in earlier cases, it had recognized the effect of such accruals. See Re Panhandle Eastern Pipe Line Co. (1942) 3 FPC 273, 283, 45 PUR NS 203, 212, affirmed (CCA8th 1944) 54 PUR NS 26, 143 F2d 488, affirmed (1945) 324 US 635, 89 L ed 1241, 58 PUR NS 100, 65 S Ct 821.

consider the past practice of the Commission to be decisive, since determinations of public utility rates are based to a large extent on estimates which project into the future and necessarily involve uncertain predictions and many imponderables. A factor which theoretically should enter into such a computation may be ignored in recognition that offsetting factors also are omitted. Or, under given circumstances the over-all computation may unavoidably be so imprecise that the omission of a particular small factor is unimportant. In other cases or in changed times, the same factor may loom sufficiently large that it cannot be ignored if the result reached is to be based on an informed rather than an arbitrary estimate. The need for flexibility to accomplish such re-evaluations is one of the considerations that make rate regulation more appropriately an administrative than a judicial function.

Moreover, the approach now taken by the Commission in determining the effect of tax accruals on working capital has been adopted by many state regulatory bodies,[4] and has been approved by economists.[5] While these views are not binding on the Commission or on this court, they represent a body of professional opinion that helps to establish in our contemplation the reasonableness of the Commission's view.

[6] Petitioner also claims that the Commission erred in the technic it employed in allocation of total costs between jurisdictional customers and nonjurisdictional customers. The allocation itself is necessary in order that the Commission may properly determine what rates jurisdictional customers may be legally charged. The Commission divided all costs on a "volumetric" basis. This means that the proportion of total costs assigned to jurisdictional business equals the volume of gas delivered to jurisdictional customers during the test period divided by the volume of gas delivered to all customers during the same period.

Normally, the Commission divides only operating costs on "volumetric basis" between the two classes of business. Fixed costs normally are allocated on the basis of "peak day" requirements of the two classes. It is the failure of the Commission to allocate fixed costs on some basis other than actual gas delivered throughout the year to which petitioner here objects. Indeed, petitioner alleges that use of the volumetric ratio is so arbitrary and at variance with the facts that in legal contemplation it is no allocation at all and the Commission has failed in its duty to make an allocation.

In most cases, the argument for allocation of fixed costs on the basis of peak day requirements seems to presuppose that peak day demands absorb the full capacity of the system. In that event peak day demands of the jurisdictional customers measure the amount of the system's capacity that

[4] See e.g., Re Pacific Teleph. & Teleg. Co., (Cal 1948) 75 PUR NS 379, 400; Re Michigan Bell Teleph. Co. (Mich 1945) 62 PUR NS 77, 81; Re Long Island Lighting Co. (NY 1935) 18 PUR NS 65, 159, 160. The supreme court of Pennsylvania held it error for a regulatory agency not to consider the effect of tax accruals and other lag factors which work in favor of the company in its determination of working capital. Pittsburgh v. Public Utility Commission (1952) 370 Pa 305, 94 PUR NS 353, 88 A2d 59.

[5] See Barnes, The Economics of Public Utility Regulation (1942) 496–499; Foster and Rodey, Public Utility Accounting (1951) 101.

is held ready at all times to serve them, even though their average daily use actually represents a much smaller portion of average total use. It is therefore considered fair to make those customers bear the cost of the facilities thus found to be maintained for their benefit.[6]

But in the instant case, petitioner's business is still in the developmental stage and it is conceded that the peak day demands recorded during the test period fall far short of absorbing the full capacity of the system and thus do not have the significance that they would have in the normal case. Apparently recognizing this difficulty, petitioner offered three alternative methods of computation, each of which sought to give effect to relative demands of, rather than average deliveries to, the two types of customers through the use of figures other than the peak day demand ratio.[7] The Commission rejected all three methods proposed by petitioner and allocated the total fixed costs between the two classes of business on the basis of relative average day usage, apparently reasoning that so long as there remained a large amount of unused capacity even on the test period peak day no allocation based on demand rather than average use would mean very much. Thus, as the matter now stands, the cost of having additional unused facilities available is to be divided between the two classes of customers in accordance with actual use and no weight is to be given to the rather different fraction of system capacity to which each is entitled or can be expected to demand.

It is also noteworthy that in denying petitioner's application for rehearing, the Commission pointed out that one of the chief factors supporting use of demand allocation of fixed costs in the typical case is the value of the priority which wholesale (jurisdictional) customers enjoy over industrial (nonjurisdictional) customers, when the system is utilized to capacity. But the Commission found this priority presently insignificant in this case because in the current stage of development there is much more than ample capacity to meet all needs of all customers.

[7] In our review of the Commission's ruling on this point we are mindful of the Supreme Court's admonition that "Under this [Natural Gas] act the appropriateness of the formula [for allocation of costs] employed by the Commission in a given case raises questions of fact, not of law." Colorado Interstate Gas Co. v. Federal Power Commission, (1945) 324 US

[6] Since a large proportion of the gas sold to jurisdictional customers is ultimately consumed for space-heating purposes, much of it by householders, the variation between peak day and average day demands of jurisdictional customers is usually much larger than the same variation is for nonjurisdictional customers, most of whom use the gas for industrial purposes. In the case at bar, the "load factor" of jurisdictional customers was alleged to be 39 per cent—i.e., for every 100 units of gas demanded on the peak day, 39 units were demanded on the average of all days in the test period, whereas the load factor for the nonjurisdictional customers was alleged to be 90 per cent. It is thus obvious that if fixed costs are allocated on the basis of peak day demands, the jurisdictional customers must bear a heavier share of the load than if such costs are allocated on the basis of average day requirements or total volume.

[7] Under the first method fixed costs were allocated on the basis of current monthly contract demand responsibility. Under the second method fixed costs were allocated on the basis of current monthly billing demands. Under the third method fixed costs were allocated on the basis of the maximum contract demand responsibility projected for the fifth year of operations.

581, 590, 89 L ed 1206, 58 PUR NS 65, 71, 65 S Ct 829, 833. In view of the conceded fact that the usual method of allocation of fixed costs would lack normal significance in this case, and in view of the above factors stressed by the Commission, we think petitioner has established no more than that reasonable men might differ in judgment whether volumetric allocation was more appropriate in this case than an allocation on one of the formulae offered by petitioner, each of which attempted to give some weight to demand factors through use of figures other than the usual peak day ratio. In such circumstances the choice made by the Commission cannot be reversible error.

Finally, we have not overlooked petitioner's claim that § 5(a) of the Natural Gas Act, 15 USCA § 717d(a), will be violated by the rate which the city of Corinth will pay under the order issued May 1, 1952, 94 PUR NS 426. But we are not persuaded that on the facts here there is any such rate increase as § 5(a) prohibits.

The orders under review will be affirmed.

KENTUCKY PUBLIC SERVICE COMMISSION

Re East Kentucky Rural Electric Cooperative Corporation

Case No. 2013
June 24, 1953

APPLICATION *by co-operative for certificate permitting construction and operation of generating and transmission facilities; on further hearing after remand by court, application granted. For original Commission decision and court decision, see (1950) 87 PUR NS 19 and (1952) — Ky —, 97 PUR NS 505, 252 SW2d 885.*

Electricity, § 3 — Distribution of co-operative power — Utility's transmission lines.

1. A proposal by electric companies that instead of additional transmission facilities being authorized for a co-operative, co-operative generated power be distributed over an integrated system of existing utility lines pursuant to "wheeling" contracts was not considered a satisfactory, practical, or feasible solution, where the lines of the private companies were already overloaded, were of such high voltage that they could not be economically tapped, or were inadequate in capacity, and where the generation and transmission of power by the co-operative to its shifting load centers in rural communities and the engineering of these facilities were an integral part of an over-all plan of supplying its customers, in which control of the delivery of power was as essential as its production. p. 150.

Monopoly and competition, § 54.1 — Harmful duplication — Co-operative transmission facilities.

2. A proposal by a co-operative to construct transmission facilities for the distribution of co-operative generated power in areas in which electric companies already had constructed lines and poles was not considered a wasteful duplication, because of inconvenience to the public generally or because of economic loss through interference with normal uses of land, where the evidence that the proposed construction would have such effects was insignificant, p. 150.

Electricity, § 3 — Co-operative transmission line — Use of private facilities.

Discussion of the technical difficulties involved where a co-operative uses private transmission facilities for the distribution of co-operative generated power instead of constructing its own transmission line, p. 152.

APPEARANCES: For the applicant, East Kentucky Rural Electric Cooperative Corporation: Philip P. Ardery, Attorney-at-Law, Louisville, Kentucky; J. M. McIntire, Attorney-at-Law, Flemingsburg, Kentucky; Charles L. Hobson, Attorney-at-Law, Frankfort, Kentucky; Alex B. Veach, President, East Kentucky Rural Electric Coop. Corp. Winchester, Kentucky; for the protestant, Kentucky Utilities Company: Squire R. Ogden, Attorney-at-Law, Louisville, Kentucky; Malcolm Y. Marshall, Attorney-at-Law, Louisville, Kentucky; for the protestant, the Union Light, Heat and Power Company: C. S. Weakley, Attorney-at-Law, Cincinnati, Ohio; for the protestant, Kentucky-West Virginia Power Company and Louisville Gas and Electric Company: Clifford E. Smith, Attorney-at-Law, Frankfort, Kentucky; B. Hudson Milner, Attorney-at-Law, Louisville, Kentucky; for the Commission: J. Gardner Ashcraft, Counsel.

Opinion and Order

By the COMMISSION: On the 14th day of December, 1950 (87 PUR NS 19), the Commission entered an order in the above-styled proceeding granting to the applicant a certificate of convenience and necessity authorizing it to construct, operate, and maintain a 40,000 kilowatt generating plant and 597 miles of transmission line. Kentucky Utilities Company and other protestants filed action in the Franklin circuit court to set aside said order. From an adverse decision in the lower court the protesting utilities appealed to the court of appeals of Kentucky. The court of appeals reversed the lower court in so far as the order appealed from granted a certificate for the construction, operation, and maintenance of the transmission facilities only and directed the lower court to remand the case to the Public Service Commission for further hearings and findings on the transmission facilities consistent with the opinion of the court. This case is now before the Commission on remand for further hearings and proceedings outlined in the opinion of the court of appeals (1952) — Ky —, 97 PUR NS 505, 513, 252 SW2d 885.

[1, 2] The court of appeals in its opinion, among other things, states as follows:

"It is our opinion that the case

should be remanded to the Public Service Commission for a further hearing addressed to the question of duplication from the standpoint of an excessive investment in relation to efficiency, and from the standpoint of inconvenience to the public generally, and economic loss through interference with normal uses of the land, that may result from multiple sets of right of ways, and a cluttering of the land with poles and wires.

If, upon such further hearing, it should develop that there will be a wasteful duplication of transmission facilities in certain areas, then the Commission should consider whether it is feasible to distribute the energy generated by the East Ky. plant over transmission lines of the appealing utilities. If the latter should be found not feasible, we believe the Commission would be justified in granting a certificate for the proposed transmission lines of East Ky., because the need for service is clear.

By what has been said in this opinion, we do not mean to say that *cost* (as embraced in the question of duplication) is to be given more consideration than the need for *service.* If, from the past record of an existing utility, it should appear that the utility can not or will not provide adequate service, we think it might be proper to permit some duplication to take place, and some economic loss to be suffered, so long as the duplication and resulting loss be not greatly out of proportion to the need for service.

As previously indicated, we think that the findings of the Public Service Commission on the question of the inadequacy of existing service and of existing service facilities, and on the question of the economic feasibility of the proposed plan of East Ky., were proper."

Under these directions of the court the only thing to be considered is duplication as defined by the court. As we understand the opinion, it would be necessary to arrive at a finding on each of the questions set forth in the first paragraph above. However, the court in the second paragraph says:

"If, upon such further hearing, it should develop that there will be a wasteful duplication of transmission facilities in certain areas, then the Commission should consider whether it is feasible to distribute the energy generated by the East Ky. plant over transmission lines of the appealing utilities. If the latter should be found not feasible, we believe the Commission would be justified in granting a certificate for the proposed transmission lines of East Ky., because the need for service is clear."

It is apparent that even if the Commission should find duplication existed as defined by the court under each of the tests it outlined, the above paragraph requires the Commission to grant the certificate sought, notwithstanding the duplication, if it further finds it is not feasible to distribute the energy generated by East Kentucky over transmission lines of the appealing utilities.

We, therefore, felt it advisable to arrive at a finding under the second paragraph above before making specific findings on the enumerated questions in the preceding paragraph, since a finding on those questions would not be material unless there was a finding that it was feasible to transmit the

energy over the transmission lines of the protesting utilities.

Upon the original hearing the protesting utilities took the position that there was no need for the additional generating capacity nor for any additional transmission facilities. Upon the rehearing the protesting utilities have proposed the delivery of the power generated by East Kentucky to them and its distribution over an integrated system by the protestants. This may be idealistic but from past history we do not believe it would be a satisfactory, practical, or feasible solution of the problem.

The court has found in its opinion that certain portions of the applicant's transmission system are not duplications and, under that finding, this Commission has certificated approximately 197 miles of the system which has been constructed under its former certificate connecting the applicant's two sources of power at its generating plant and its interconnection with TVA at Summershade. A major portion of the remaining lines in this application consists of a loop feed between the same two points through Taylorsville, Bardstown, Elizabethtown, Munfordville, etc. There has been little evidence on the original hearing or upon the rehearing concerning "wasteful duplication of transmission facilities in certain areas" but the evidence has been directed chiefly to the feasibility of the whole system. The protesting utilities on rehearing directed practically their entire evidence on a substitute system and included only the 197 miles heretofore certificated by the Commission of the proposed transmission facilities of East Kentucky. Their plan envisions that not a single foot of line, in addition to that already constructed, should be constructed by East Kentucky. At no time did they direct any part of their evidence to establish that there would be wasteful duplication in any certain areas or that any particular segments of the proposed construction would be wasteful duplication.

The Commission studied this problem of duplication of transmission facilities in certain areas in its original consideration and in most, or practically all, instances where it appeared there might be a duplication of lines it was found that existing lines were already overloaded, were of such high voltage that they could not be economically tapped, or were inadequate in capacity or for some other reason the new lines were justified.

The applicant has pointed out that the generation and transmission of power to its shifting load centers in the rural communities and the engineering of its generation and transmission facilities are an integral part of the over-all plan of supplying its customers; that one supplements the other and to give the needed relief both are necessary; that the control of the delivery of power is essential as well as its production.

The integration of two separate and distinct generating and transmission facilities presents many engineering, managerial, and economic complications. The location and the routes of the transmission lines proposed to be constructed by East Kentucky were predicated on the location of the co-op load centers, the expected loads, the principal of the loop feeds, the necessity of adequate connection with TVA, and many other factors that, of neces-

sity, must be taken into consideration by those charged with the responsibility of engineering the transmission system. It must be borne in mind that each system's primary responsibility is to render efficient, adequate service to its own consumers at the lowest possible cost. The amount of energy supplied by the protesting utility to the various co-operatives is only ratio-wise, both in dollars, and amount, small, compared with that necessary to supply their own customers. It is therefore reasonable to presume that the protesting utilities in their planning on further expansion and construction to be governed largely by the expected requirements and demands of their own customers rather than the customers served by the co-operatives. The complications involved in combining two separate and distinct generating and transmission systems are better explained and illustrated by engineers schooled in the problem of planning, constructing, and operating electric energy systems.

The evidence discloses other reasons why the plan of the protesting utilities to distribute energy generated by the East Kentucky plant over transmission lines of the protesting utilities is not feasible. The said plan, if put into effect, would cause East Kentucky to lose control over the flow of energy necessary to render adequate service over its entire system. It would prohibit the second circuit between Ford and Summershade which is essential to insure proper stability between the TVA system and the East Kentucky system and necessary to provide the standby needed by East Kentucky in its Ford generating plant. Elimination of the second circuit would require construction of an additional generating unit at its Ford plant for standby at an estimated cost of from three to three and one-half million dollars. Protesting utilities' plan would require extensive voltage regulation equipment, elaborate relay, and elaborate telemetering. (See Transcript of Evidence, Hearing of January 20–21, 1953—Pages 158, 159, 160, 161, 162, 169, 170, 171, 172, 173, 174 and 175.) (See Transcript of Evidence, Hearing of March 10–11–13, 1953—Pages 104, 105, 106, 107, 108, 109, and 110.)

From reexamination of this record and the proof heard upon rehearing, the Commission is of the opinion that there has been no satisfactory nor feasible plan offered on the record for the "distribution of the energy to some of the co-ops under 'wheeling' contracts."

Neither has it been pointed out, nor has the Commission been able to find, that what might appear to be "duplication of transmission facilities in certain areas" is in fact a "wasteful duplication," or wherein the construction of any portion of the remaining transmission lines will amount to a "duplication from the standpoint of an excessive investment in relation to efficiency."

Such evidence as was offered "from the standpoint of inconvenience to the public generally, and economic loss through interference with normal uses of the land, that may result from multiple sets of rights-of-ways, and a cluttering of the land with poles and wires" was to the effect that the results would be insignificant.

The Commission is of the opinion

and so finds that it is not feasible to distribute the energy generated by East Kentucky plant over the transmission lines of the protesting utilities.

The Commission further finds that public convenience and necessity require the construction, operation, and maintenance of the remainder of the proposed transmission facilities applied for in this application.

For the foregoing reasons it is *ordered:*

(1) That East Kentucky Rural Electric Cooperative Corporation be, and it hereby is, granted a certificate of convenience and necessity authorizing it to construct, operate, and maintain the remaining part of the 597 miles of transmission lines more fully described in the application, exhibits, and evidence herein that has not previously been authorized by orders of this Commission.

(2) That one year from the date hereof (and annually thereafter until the construction herein authorized is completed) the applicant shall file with the Commission a report showing the extent to which the construction has progressed. Within ninety days after completion of the construction authorized herein the applicant shall file with the Commission a detailed report of the costs of such construction.

(3) That nothing herein shall be construed to authorize the construction, operation, or maintenance of any additional generating capacity or transmission line not specifically authorized herein.

NEW JERSEY BOARD OF PUBLIC UTILITY COMMISSIONERS

Sam Masur et al., Trading As Torch Cocktail Lounge

v.

New Jersey Bell Telephone Company

Docket No. 7238
July 22, 1953

COMPLAINT *by telephone subscribers against discontinuance of service; dismissed.*

Service, § 61 — Commission jurisdiction — Discontinuance of service.

1. The Board of Public Utility Commissioners has jurisdiction over the subject matter of a complaint by a telephone subscriber against a company for the discontinuance of service and likewise has jurisdiction over the parties, p. 156.

Service, § 2 — Constitutional requirements — Telephone gambling regulation — Discontinuance.

2. A telephone company's regulation authorizing the discontinuance of

service upon notification from a law enforcement official of its unlawful use is just and reasonable and not in violation of the 14th Amendment of the Federal Constitution, p. 156.

Service, § 134 — Discontinuance for gambling — Notice from police.

3. The necessary implication of a request by a law enforcement official that a telephone company discontinue service at a particular location, because of an offense on a particular date, is that the law enforcement official desires that no telephone service shall be given to the party in whose name the telephone was registered at any other subsequent time or at any other location until that party receives a letter from the law enforcement official that there is no objection to restoration of service, p. 156.

APPEARANCES: Maurice H. Pressler, by Leslie S. Kohn and Paul Policastro, for complainants; A. J. Bittig, for respondent; John R. Sailer, Deputy Attorney General for Board of Public Utility Commissioners; David M. Lane, Director, Division of Engineering, on behalf of the Board of Public Utility Commissioners.

By the COMMISSION: The examiner's report in the above-entitled matter was filed with the secretary of the Board of Public Utility Commissioners on June 12, 1953, and subsequently served on the respective parties. On July 1, 1953, the respondent, New Jersey Bell Telephone Company, filed exceptions to the examiner's report pursuant to Paragraph 7 of Board's Conference Order No. 26.

The essential points of the exceptions are as follows:

1. The respondent claimed that the recommendations of the examiner would limit the discontinuance of telephone service at any location which was requested by a law enforcement official, and that it would not extend to a discontinuance of telephone service listed under the names of the persons who committed the violation. It was also claimed that this would result in a person who used a telephone for bookmaking, for which service was disconnected, to again obtain service by merely moving to another location.

2. The respondent claimed that the state of New Jersey declared bookmaking to be illegal and that the Public Utility Commission has no jurisdiction or regulation over police officials.

3. The respondent claimed that it had reasonable cause to believe that the telephone here in question was being used for illegal purposes and that it had the right to discontinue the service.

4. The respondent claimed that the examiner's report failed to consider the agency relationship between the New Jersey Bell Telephone Company and the complainants where the complainants had public telephone service.

This matter was set down for hearing on July 7, 1953, for oral argument in Room 346, State House Annex, Trenton, New Jersey. The parties appeared by counsel on that date and oral argument was heard.

The respondent admitted so much of the examiner's report as was set out in Paragraphs 1 through 14, inclusive, and Paragraph 16. The respondent further argued the legal principles and interpretation of the examiner's report

and evidence as more fully set out in the exceptions filed with the Board.

In reply, the complainants argued that the examiner's report was correct in that there was no indication in the record that Chief of Police Lacey intended that service at any other telephone, other than BIgelow 3–9414 at 1126 Broad Street, Newark, New Jersey, be discontinued; that the discontinuance of telephone BIgelow 3–9722 at 258 Clinton Avenue, Newark, New Jersey, was unlawful; and that service should be restored to the complainants.

The Board finds as facts the matter set out in Paragraphs 1 through 14, inclusive, and Paragraph 16 of the examiner's report as filed herein.

The Board now considers the argument of counsel for the respective parties and finds that:

[1–3] 1. The Board has jurisdiction over the subject matter and over the parties. Toms v. New Jersey Bell Teleph. Co. Docket No. 7283, dated May 20, 1953, 99 PUR NS 63. The provision in § 10, Regulation G of respondent's tariff, "the right to terminate service," is just and reasonable and not in violation of the 14th Amendment, and it has been upheld many times by the Board. Toms v. New Jersey Bell Teleph. Co. *supra*.

2. The letter of Frederick R. Lacey, Chief of Police, Newark, New Jersey, dated August 9, 1952, as more fully set out:

"In reply to your letter of July 30, 1952, with reference to Dude's Bar (BI 3–9414), 1126 Broad Street, Newark, New Jersey, we are forwarding herewith a photostatic copy of a communication, received from Deputy Director Emerson A. Tschupp, Division of Alcoholic Beverage Control Division, state of New Jersey, 1060 Broad Street, Newark, New Jersey, which contains pertinent excerpts from the synopsis of facts from that division's investigation which resulted in the arrest of Albin K. Ragowski, a bartender in the tavern.

"Communication from the Alcoholic Beverage Control Division is self-explanatory, and as a result of his arrest, Ragowski pleaded guilty to accepting horse race bets (bookmaking) and was fined $150.

"The second telephone (BI 2–7499) listed in your letter was not involved in this case.

"In view of the facts contained in this matter, I respectfully request that BI 3–9414 be removed from the premises.

"Thanking you for your co-operation in this matter, I am"

indicates to the Board that the chief of police requested the telephone listed under Dude's Bar, 1126 Broad Street, Newark, New Jersey, which was a trade name for Sam Masur and Irving Goldstein, to be discontinued, and that there arises the necessary inference that the chief of police did not desire telephone service to be granted to Sam Masur and Irving Goldstein at any other location.

3. The Board, beginning with the DeLuisa Case ([1949] 78 PUR NS 22), and many cases subsequent to that, has stated that it has no jurisdiction over any law enforcement official and that his actions in the course of this employment are presumed to be valid until shown otherwise, in some other forum of competent jurisdiction.

4. The Board has considered the record and it finds that the action of

the telephone company in discontinuing service to Sam Masur and Irving Goldstein on the basis of the letter from the chief of police of Newark, New Jersey, as set out in Paragraph 2 above, was reasonable.

5. In the original hearing and record and examiner's report, there was no substantial issue raised as to the right of the respondent, New Jersey Bell Telephone Company, to discontinue service where there was an agency relationship, and as this is a new issue, the Board will not now consider it.

The Board now considers that where a law enforcement official notifies the telephone company to discontinue service of a particular telephone at a particular location because of an offense on a particular date that the necessary implication of that request is that the law enforcement official desires that no telephone service shall be given to the party in whose name that telephone was registered at any other subsequent time until that party receives a letter of no-objection from the law enforcement official or his superior that they have no objections to the restoration of service.

Therefore, on the basis of the record and after a consideration of the examiner's report, the exceptions as filed thereon and oral argument of counsel, the Board *decides* that the telephone service to Sam Masur and Irving Goldstein, t/a Torch Cocktail Lounge, 258 Clinton Avenue, Newark, New Jersey, should not be restored until they receive a letter of no-objection from the chief of police or police commissioner of the city of Newark, and that the complaint is *denied*.

WISCONSIN PUBLIC SERVICE COMMISSION

Re City of Two Rivers

2-U-4021
June 5, 1953

APPLICATION *by municipal electric plant for authority to substitute a flat charge for a percentage penalty for delinquent bills and to revise certain rules; denied in part.*

Payment, § 53 — Delinquent bills — Gross penalty.

1. A 5 per cent gross penalty, rather than a flat 50-cent charge, for delinquent electric bills was deemed more equitable because, under the flat charge, small users would have a gross charge levied against them which could amount to as much as 87.5 per cent of their net bill, p. 158.

Rates, § 354 — Electric — Off-peak charges — Simplification of billing.

2. The discontinuance of off-peak water heating and cooking-and-heating electric rates, in order to simplify billing and avoid additional operating expenses, was considered reasonable, p. 158.

Rates, § 174 — Necessity of determining rate base — Decreased rates.

3. A rate base need not be determined where proposed rate changes will result in a slight decrease in earnings, p. 159.

Opinion and Order

By the COMMISSION: The city of Two Rivers, Manitowoc county, as a water and electric utility, on April 8, 1953, filed a joint application for authority to adopt a flat charge as a penalty for nonpayment of water and electric bills and to revise certain rules.

Notice of hearing and assessment of costs was issued April 21, 1953.

Hearing: May 11, 1953, at Madison, Wisconsin, before Examiner Rolfe E. Hanson.

APPEARANCES: For the city of Two Rivers, John Dever, city manager, Donald Laubenstein, director of utilities, Alfred O. Allie, chief accounts clerk, Two Rivers; of the Commission staff, I. M. Backus, rates and research department; Gerald F. Wilke, rates and research department.

Opinion

The city of Two Rivers, as an electric utility, desires to place in effect a post-card billing system. It appears that there is not sufficient space on the card to imprint the gross billing as well as the other necessary information. The utility desires to place in effect a fixed penalty that would be added to the net bill for nonpayment within the prescribed discount period.

The utility contends that the entire time of one employee is used in meter reading and delivery of bills. Recently, several hours of overtime have been necessary in order to deliver bills. By using post-card machine billing, the increase in costs will be prevented.

The calculation of bills has resulted in overtime work for the billing clerk. If a system of machine post-card billing is adopted, the billing time will be reduced.

The utility has an off-peak storage-type water-heating rate and a heating-and-cooking rate. All the customers served under these rates could be adequately served under various residential, commercial, or municipal service rates. The utility desires to abolish the present off-peak water-heating rate, Rw-1, and the heating-and-cooking rate, Ch–1, in order to simplify its billing.

[1] The Commission considers that a flat 50-cent penalty is inequitable. The small users would have a gross charge levied against them which could amount to as much as 87.5 per cent of their net bill for a particular month. Since the utility now has a 5 per cent penalty for power use, the use of a 5 per cent gross penalty is deemed more equitable than a flat penalty.

[2] On the basis of 1952 operations, if the present off-peak water-heating rate and the cooking-and-heating rate were removed and the use under these rates transferred to other rate schedules, five customers would have an annual increase totaling about $87 and seven customers would realize a total decrease of about $195 annually. A net decrease to the applicant in the amount of $108 annually will result.

If the rate changes are placed in effect, the utility will be able to prevent additional operating expenses from

occurring for meter reading, billing, and collecting.

[3] The rate changes will result in a slight decrease in earnings for the utility although certain rates paid by some individual customers may be increased slightly. There is, therefore, no necessity to make a finding of a rate base in this proceeding.

Findings of Ultimate Fact

The Commission finds:

1. That it is just and reasonable to withdraw the existing electric rate schedules applicable to water heating and to heating and cooking.

2. That the rates as set forth in the appendix [appendix omitted] will not yield a rate of return in excess of the present rate of return. Said rates are reasonable and just. They will result in a net decrease in revenues to applicant of $108 which will have no material effect on the rate of return.

Conclusions of Law

The Commission concludes:

That it is empowered under §§ 196.20 and 196.37, Statutes, to change applicant's rates and rules and to approve and establish lawful rates and rules.

ORDER

The Commission therefore *orders:*

1. That the present rate schedules, Rw–1 and Ch–1, of the Two Rivers municipal electric utility shall be withdrawn and the customers served thereunder be transferred to other appropriate rates.

2. That the present gross rates in rate schedules Rg–1, Rg–2, Eg–1, and Cl–1, of the Two Rivers municipal electric utility be superseded and the penalty provision set forth in the appendix attached hereto [omitted herein] be substituted for them effective the first meter reading date following the date of this order.

EDITOR'S NOTE.—The Commission has also held that the proposed substitution of a flat charge for a percentage penalty for delinquent water bills is unduly discriminatory against small users. Re Two Rivers, 2–U–4022, June 5, 1953.

FEDERAL POWER COMMISSION

Re Transcontinental Gas Pipe Line Corporation

Docket No. G–2075
July 17, 1953

CERTIFICATION *of question as to admissibility of evidence before presiding examiner; ordered that evidence be received.*

Rates, § 13 — Authority of Federal Power Commission — Natural Gas Act.

1. The scope of the authority of the Federal Power Commission under § 4 (e), of the Natural Gas Act, 15 USCA § 717c(e), is as broad as that con-

tained in § 5(a), 15 USCA § 717d(a), and embraces all issues relating to the determination and apportionment of costs between interstate wholesale customers of a pipeline company, whether or not the customers be assigned to one zone or different zones on a pipeline, p. 160.

Rates, § 648 — Evidence — Admissibility under Natural Gas Act.

2. A presiding examiner, in a proceeding under § 4(e) of the Natural Gas Act, 15 USCA § 717c(e), should receive evidence relating to rate zones and the allocation of costs between customers of a gas pipeline corporation, p. 160.

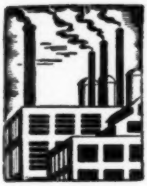
Order Directing Presiding Examiner to Receive Evidence Respecting Zone Rates

By the COMMISSION: **[1, 2]** On July 13, 1953, the presiding examiner, pursuant to § 1.27(b)(8) of the Commission's Rules of Practice and Procedure, certified to the Commission, for its consideration and disposition, the question whether at the hearing in this proceeding, now in progress, he should receive evidence relating to rate zones and the allocation of costs between customers of Transcontinental Gas Pipe Line Corporation (Transcontinental).

This proceeding involves an application under § 4(e) of the Natural Gas Act, 15 USCA § 717c(e), for a rate increase. Objection has been made by certain interveners to the reception of evidence whereby it was sought to develop cost of service by rate zones for Transcontinental. The contention is made that the Commission does not have authority under § 4(e) to make an apportionment of the total costs of service between customers or between zones. Section 4 (e) provides that when a company files for a change in rates, the Commission after a hearing "may make such orders with reference thereto as would be proper in a proceeding initiated after it had become effective." A "proceeding initiated after it (the rate) had become effective" can only be one under § 5(a) of the act, 15 USCA § 717d(a) (Hope Nat. Gas Co. v. Federal Power Commission [CA4th 1952] 94 PUR NS 375, 196 F2d 803, 805). Under § 5(a), the Commission's authority extends, inter alia, to the question as to whether the rates are "unduly discriminatory or preferential, ..." The scope of the authority under § 4(e) is as broad as that contained in § 5(a); and embraces all issues relating to the determination and apportionment of costs between interstate wholesale customers whether or not the customers be assigned to one zone or different zones on a pipeline.

The Commission *orders:*

The presiding examiner is hereby directed to hear and receive testimony and other evidence relating to the subject matter referred to in the question certified.



Industrial Progress

A digest of information on new construction by privately managed utilities; similar information relating to government owned utilities; news concerning products, supplies and services offered by manufacturers; also notices of changes in personnel.

AG&E Plant in Operation On Kanawha River

THE newest steam-electric generating power plant in the seven-state American Gas and Electric Company system, the Kanawha River Plant on the Kanawha River at Glasgow, West Virginia, began delivering its 200,000 kilowatts recently. The $46,000,000 plant is owned and operated by the Appalachian Electric Power Company, a major AGE subsidiary. A second 200,000 kilowatt unit is under construction and expected to go into operation late this year. When both generating units are "on the line" the plant will consume about 1,080,000 tons of coal a year.

The AG&E system's capacity now has risen to 3,219,000 kilowatts with the addition of the first Kanawha unit. Another 920,000 kilowatts of capacity is under construction by the system, including the second Kanawha unit. When operating at full completed capacity, the plant will produce enough power to serve the residential requirements of a city the size of Philadelphia, according to its engineers.

The Kanawha River plant is the fourth major power generating station to be placed in operation on the AGE System during the past eight years. This plant represents only a small part of the overall expansion program of the seven principal operating companies that make up the AGE System. During the period 1947-54, inclusive, the System's expansion will have cost more than $680-million for new generation, transmission, distribution and other facilities.

Texas Gas Trans' Completes 1952-1953 Construction Program

TEXAS GAS TRANSMISSION CORPORATION, Owensboro, Kentucky, recently put into service the final 45-mile segment of its 1952-1953 construction program, according to L. E. Ingham, vice president.

The Texas Gas System can now deliver more than 1 billion cubic feet of gas a day through 3,236 miles of pipeline. The System serves utility and industrial customers in Kentucky, Tennessee, Indiana, Illinois, Mississippi, Arkansas, and Louisiana.

Westcott & Mapes Names E. E. Cobb as Engineering Manager

WESTCOTT & MAPES, INC., architects and engineers, 109 Church street, New Haven, Connecticut, have announced the appointment of Edgar E. Cobb as engineering manager. In this capacity he will direct all architectural and engineering services performed by Westcott & Mapes.

Mr. Cobb has been with Westcott & Mapes since August 1950 and has been chief of the electrical division since August 1951.

Houston Lighting to Build $20,000,000 Station

THE Houston Lighting and Power Company plans to build a new $20,000,000 outdoor steam-electric station on the Ship Channel directly across from a Baytown refinery.

According to the announcement, work is due to begin on it in early 1954. Plans are for it to be completed and in operation two years later.

It will be known as the "Sam Bertron Steam-Electric Station," in honor of Sam R. Bertron, president of the Houston Lighting and Power Company.

The plant will be similar in character to the company's newest branch plant at Greens Bayou and will supply the fast and growing industrial area sometimes referred to as the "Golden Triangle."

B-K Steel Forms Used to Build Tunnels for Niagara Project

BLAW-KNOX COMPANY'S steel forms, used for concrete setting, are helping to build another of the construction wonders of America. The new wonder is the pair of gigantic tunnels that will divert water from Niagara Falls to the new $300 million electric power station being erected in Canada.

The water will be taken from the Upper Niagara River, near Chippawa, two miles above the Falls. The twin tunnels will transport it under the city of Niagara Falls, Ontario, and take it below the Falls for a total journey of 5½ miles. There the tunnels will link up with a 2½ mile surface canal that will deliver the water to the Sir Adam Beck Generating Station.

Actual site of the power plant is six miles

(*Continued on page* 26)

below the Falls, on the side of a 300-foot cliff of the Lower Niagara River Gorge. The plant will have a generating capacity of 1,200,000 kilowatts, enough for the residential needs of 7 to 8 million people. Four of its 12 generating units are expected to be running next year, while the remainder will reach full operation by 1957.

On the average, one-fifth of the total flow of Niagara will pass through the tunnels. This amounts to 26 million gallons of water per day, enough to meet the home needs of from one-quarter to one-half billion people.

Blaw-Knox steel forms have been used on such other tremendous construction jobs as the Pennsylvania Turnpike, the Delaware Aqueduct used to bring drinking water to New York City, Philadelphia, Chicago, and New York subways, the Soo locks, the Lincoln tunnel in New York, and a large number of the nation's biggest dams. The start of this company in 1907 was based on the invention of re-usable steel forms for concrete construction; the Panama Canal was the first big use of the new product.

G-E Announces New Bulletin on Indoor Current Transformers

A NEW bulletin describing G-E Type JKR-O indoor current transformers for operating watthour meters or instruments has been announced as available from the General Electric Company, Schenectady 5, N. Y.

The four-page bulletin, designated GEC-956, contains information on the transformer's application, construction features, accuracy ranges, thermal rating, and various engineering and design aspects.

Illustrations are provided showing the transformer's characteristic ratio and phase-angled curves at 60 cycles.

Columbia Gas Installing Electronic "Brain"

A $62,000 electronic "brain" that takes only a few hours to solve pipeline network problems that previously weren't even attempted, is being installed by Columbia Gas System in Columbus, Ohio.

The machine, known as the McIlroy Pipeline-Network Analyzer, will indicate pipe sizes to maintain proper gas pressures for customers and will save the System millions of dollars. It does this by computing the rates of gas flow in the various pipe lines constituting low-pressure gas distribution systems. By using electricity flowing through wires to simulate gas flowing through pipelines, the analyzer also provides a pressure survey. By easily made changes in the circuits, the engineers can experiment with various combinations of pipe sizes and locations of gas sources, each of which would take months, possibly years, to work out mathematically.

Heretofore when a distribution network was to be extended to new customers or changed in any other way, finding the right combination of pipe sizes and placement to maintain the proper pressure was to a great extent a matter of estimation. Time is not available to work out mathematically the accurate results of various combinations. So, mathematics, experience and estimates have been combined to provide the answers. This might mean several miles of six-inch pipe laid where four-inch pipe would have done just as well. Such minor inaccuracies can cost thousands of dollars since without the analyzer it is necessary to be careful not to underestimate pipe line sizes.

Today the gas industry has shown a greater interest in the "brain" than has the waterworks industry. Three of the gas network analyzers of approximately similar design have been built by the Standard Electric Time Company, Springfield, Mass., under the direction of Dr. Malcolm McIlroy, assistant Dean of Cornell University's College of Engineering, who developed the Analyzer.

Columbia Gas System's analyzer is designed to fill the specific needs of a huge natural gas system serving more than a million retail customers in seven mid-Appalachian states. It is being set up in the engineering laboratories of Columbia Gas System Service Corporation, affiliate of The Columbia Gas System, Inc. for the use of all Columbia companies.

According to C. F. de Mey, vice president and chief engineer of Columbia Gas System, the network analyzer will serve several purposes. By simulating the flow of gas it can determine the gas pressure at street intersections of a distribution system, giving a close approximation to a pressure survey, which was never before available in so complete a form. This information will show where pipe capacity must be added to give better service.

Many trials of the best location for regulators or sources (points where gas is taken into the distribution network) can be made in the time it would take the engineers to think about figuring one possible location mathematically. The computer can look ahead, too, showing necessary additions for a five-year construction plan based on estimated future gas requirements.

Two possible problems are anticipated: persuading old-time distribution men that the machine is more accurate than their experience-plus-intuition calculations; and translating the street distribution man's language into computer language. The analyzer is only as good as the information fed into it; that information must be as accurate as can be obtained. When it's right it's really right. It's not magic —it's science and progress!

Kellogg to Build Chimneys 580 Feet High at Power Plant

M. W. KELLOGG COMPANY has received a $1,750,000 contract to build three of the world's tallest chimneys—each 580 feet high —at Cheshire, Ohio.

The chimneys will go into Ohio Valley Electric Company's power plant estimated to cost $200,000,000 as one of two generating units for the uranium diffusion center of the Atomic Energy Commission near Portsmouth, Ohio.

(*Continued on page* 28)

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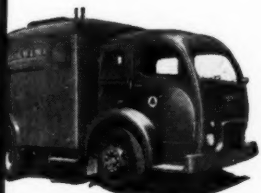
SAVES TIME—CUTS COST WITH *White 3000*



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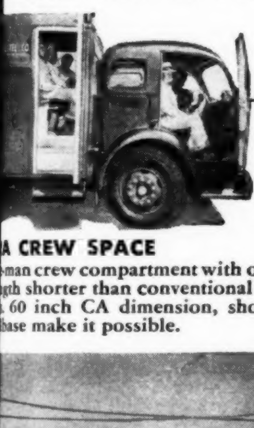

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Weighing 9,000 tons apiece, the chimneys will be reinforced concrete construction and will have an outside base diameter of 55 feet. Construction, which is expected to take nearly two years, is scheduled to begin next month.

Each chimney will contain a bomb shelter in the base, two utility rooms and a 250,000-gallon condensate water tank.

The 1,000,000 kilowatt steam-electric generating station will be ready for complete operation in 1956. This station and a sister plant at Madison, Indiana, will be the largest of their kind in the world.

Booklet Describes Crawler Crane

The Schield Bantam Company has issued literature which describes in detail its recently introduced C-35 Crawler Crane.

This new piece of literature gives complete specifications and engineering data descriptive of the new machine and is available to anyone interested. Copies can be obtained by writing directly to Schield Bantam Company, Waverly, Iowa, or by contacting local Schield Bantam distributors. The bulletin number of this descriptive material is C-100.

Federal Electric Product Issues Booklet on Safety Switches

A new bulletin containing complete information on all Federal Noark Safety Switches has been issued by Federal Electric Products Company, 50 Paris street, Newark, New Jersey. The booklet describes in detail the many patented features of Federal's line of safety switches, including the only front-operated, visible-blade switches of this type on the market.

The bulletin describes Type A, ACI switches up through 1200 amperes; Type A, Double-Throw up through 600 amperes; and Type D up through 400 amperes. Switches are available in raintight (NEMA III) and cast enclosures to meet NEMA specifications III, IV, and V.

Features of Federal Noark front-operated Industrial Switch are shown in drawings and photos. Also illustrated and described in detail is the patented new Federal Noark high pressure fuse holder, which completely eliminates heat-creating joints near fuse clips.

Vepco Plans $16,000,000 Addition to Possum Point Plant

Virginia Electric & Power Company will build a $16,000,000 addition to its steam generating plant at Possum Point near Quantico, Va., according to a recent announcement.

This will boost Vepco's construction plans to nearly 200 million dollars for a five-year program.

The new work between Quantico and Alexandria will add 100,000 kilowatts capacity to the station and is scheduled to be completed in August, 1955.

(*Continued on page* 30)

Other projects in Vepco's program include a $32,500,000 addition to the Portsmouth plant, a $33,000,000 hydro-electric plant at Roanoke Rapids, N. C., and a similar unit at Gastonia, N. C.

California Oregon Pwr. to Boost Generating Capacity 62,000 KW

THE CALIFORNIA OREGON POWER COMPANY has ordered two automatic hydroelectric package power plants from the Westinghouse Electric Corporation. They will be installed at the Lemolo No. 1 and No. 2 generating stations on the North Umpqua River east of Roseburg, Oregon.

The power plants, consisting of waterwheel generators, transformers, and switchgear, will add 62,000 kilowatts of electrical capacity to the utility's system.

Lemolo No. 1, a single-unit, 29,000-kw outdoor automatic plant, is scheduled to begin operation in 1954. Lemolo No. 2, a single-unit, 33,000-kw outdoor automatic installation, is scheduled for completion in 1955.

PG&E Unveils Unusual New "Labor Force"

CREATION of a brand new "labor force" which can do as much work in a year as 18½ million strong workmen was announced recently by Pacific Gas and Electric Company.

According to company engineers, it would take the muscle power of that many men working 40 hours a week for 50 weeks a year to equal the annual energy output of two new electric generating units installed at PG&E's great Contra Costa Steam Plant on the San Joaquin River near Antioch.

A strong man, the engineers calculated, can average only about 35 watts energy output over a working day—or approximately one third the energy used to burn an ordinary 100-watt electric light.

The two new units together have a generating capacity of 235,000 kilowatts, and they will work far longer hours than men can.

The two new sources of power join three other units placed in service in 1951, giving the plant a total generating capacity of 575,-000 kilowatts—enough power to supply all the needs of a city larger than San Francisco.

Since World War II, PG&E now has installed 1,922,000 kilowatts of new generating capacity in nine big plants. At 35 watts per man and a 40-hour week, it would take 151 million workmen to do as much work in a year as the nine new plants can do. California's entire population is just over 12 million.

To be ready for further demand as it develops, the Company began as early as 1951 to build additional generating capacity, and now is hard at work on four more new steam-electric and hydroelectric generating plants, all scheduled for completion in 1954 or 1955, and has a fifth plant projected.

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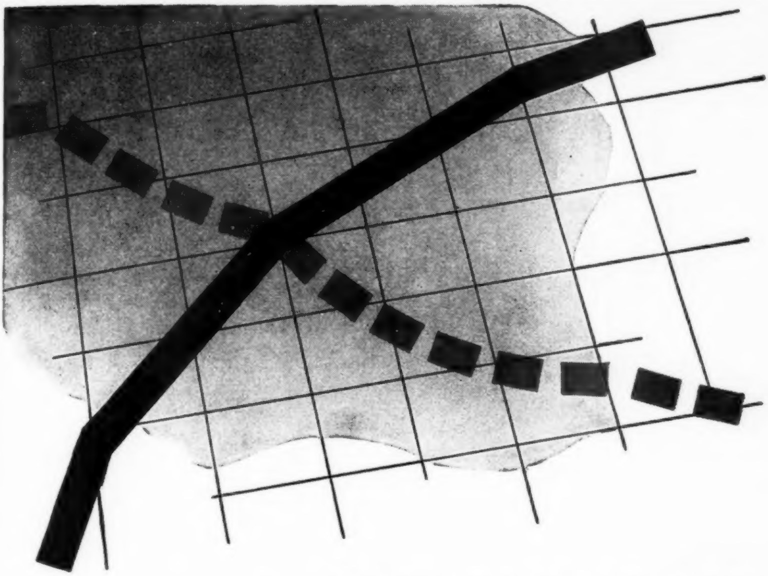

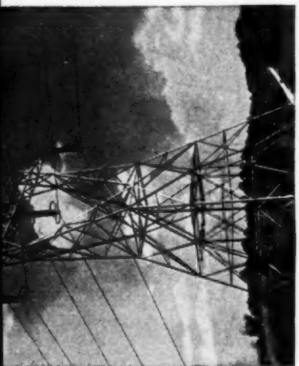

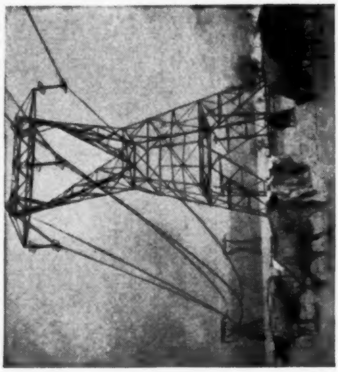

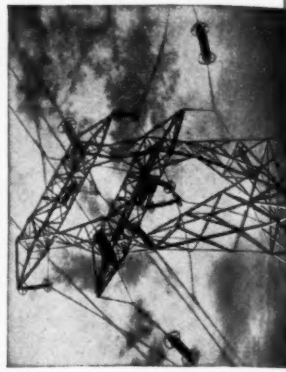

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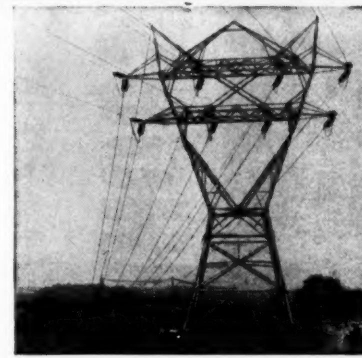

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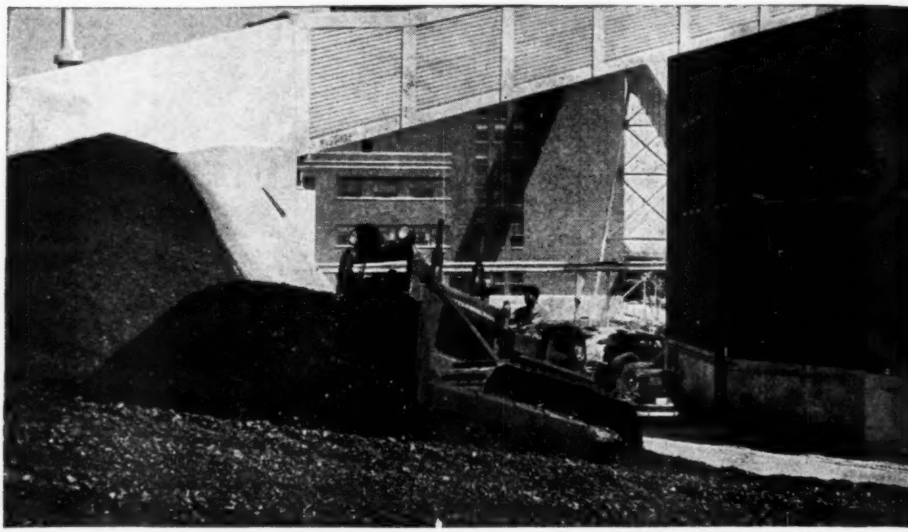

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